



सत्यमेव जयते

INDIAN AGRICULTURAL
RESEARCH INSTITUTE, NEW DELHI.

I. A. R. I. 6.

MGTIC—81—51 AR/57—3-4-58—5,000.

The only Indispensable & Authoritative Annual Reference
Book for the Indian Sugar Industry

THE INDIAN SUGAR INDUSTRY—

(1943 ANNUAL)

Vol. IX

Editor : Mr. M. P. GANDHI

350 Pages:

Price Rs. 6-6-0; V.P.P. Rs. 6-12-0.

— CHIEF FEATURES —

- ❖ Retrospects and Prospects of the Sugar Industry in India in 1942-43 and 1943-44, and position in world economy.
- ❖ *Modus Operandi* of the Indian Sugar Syndicate Ltd., Cawnpore.
- ❖ "The Sugar Industry at a Glance", containing 46 Statistical Tables pertaining to production and consumption of Sugar, imports and exports of Sugar, Production of Gur, Cane-crop, Duty and Revenue from Sugar, etc.
- ❖ The Sugar Industry (Protection) Act, 1939, Protective Duties Continuation Act, 1944, and Sugar (Temporary Excise Duty) Order, 1943. (Texts).
- ❖ The Sugar and Sugar Products Control Order, 1943, of the Government of India, with the latest amendments, the Gur Control Order, 1943, and other important Notifications.
- ❖ *Personnel* of U. P. and Bihar Sugar Control Board, 1943-44.
- ❖ Details re. U. P. & Bihar Sugar Commission, Cawnpore.
- ❖ Necessity of Regulation of Industry on an All-India basis.
- ❖ Discussion on Export Prospects, Sugar Control Policy, and Rationing.
- ❖ Proposed Central Sugarcane Committee, 1944.
- ❖ Comparative position of the Industry in various parts of India.
- ❖ Capital and Dividend Statement of Sugar Mills. (Latest.)
- ❖ *Complete and up-to-date list of Sugar Mills*, working and projected, with addresses of Managing Agents, etc.
- ❖ Contents and Bibliography.

Extract from Reviews of 1942 Annual

"The International Sugar Journal", London, March, 1944.

"Mr. Gandhi's annual volume is stocked with statistical and other information about the Indian sugar industry. A large part is devoted to the numerous and complicated legal enactments and Controller's Orders covering sugar production and sale in India, arising from the assumption of control by the Government of prices and distribution. The author also provides a good deal of comment on present problems of the Indian Sugar Industry and its future prospects."

Another Recent and Authoritative Publication :

THE INDIAN COTTON TEXTILE INDUSTRY—1943 ANNUAL

Editor : M. P. GANDHI—With a foreword by Sir HOMI MODY, K.B.E.

350 Pages:

Price Rs. 4/4 V.P.P. Rs. 4/10 Foreign Edition Sh. 9/-

FUTURE OF HANDLOOM WEAVING INDUSTRY IN INDIA—

(ITS POSITION IN POST-WAR ECONOMY)

BY

M. P. GANDHI, M.A. (Benares Hindu University),

Editor, Indian Cotton Textile Industry Annual and Indian Sugar Industry Annual; Honorary Lecturer in Cotton Economics, Sydenham College of Commerce & Economics, Government of Bombay; Bombay Agent, Gujarat Paper Mills Ltd.; [Formerly, Controller of Supplies, Bengal Circle, Supply Department, Government of India; Secretary, Indian Chamber of Commerce, Calcutta; Secretary, Swadeshi Prachar Samity, Calcutta; Secretary, Indian Colliery Owners' Association; Secretary, Indian Sugar Mills Association; Secretary, Federation of Indian Chambers of Commerce & Industry; Secretary, Indian National Committee, International Chamber of Commerce; Chief Commercial Manager, Dalmia Cement Ltd. & Rohtas Industries Ltd.; Head of Credit Department, National City Bank of New York, Calcutta; Director, Indian Sugar Syndicate Ltd.; Member, Bihar Government Labour Enquiry Committee; Member, U. P. & Bihar Joint Power Alcohol Committee; Member, U. P. & Bihar Sugar Control Board; Member, Cottage & Rural Industries Sub-Committee of the National Planning Committee; Member, Advisory Committee, East Indian Railway; Member, Executive Committee, Bengal Textile Institute; Ashburner Prizeman, Bombay University; Examiner in B.Com. Examination of the University of Allahabad, Lucknow, and Bombay.]



[For a list of other publications, please see the last page]

To be had of:

GANDHI & CO. (Publishers),

**JAN MANSION, PHEROZESHAH MEHTA ROAD,
FORT, BOMBAY.**

Telephone Nos. :

Office : { 25961
 { 24047
Res. : 43926

28 Pages.

Price Re. 1/-

Telegrams :
"KEEN", BOMBAY

The only Authoritative & Indispensable Annual Reference
Book for the Indian Cotton Textile Industry

**The Indian Cotton Textile Industry—
(1943 Annual)**

Vol. VII

Editor : Mr. M. P. GANDHI

Extract from the Foreword by

Sir HOMI MODY, K.B.E.

“Mr. Gandhi’s Annual contains a fund of information on every aspect of the industry, and is a creditable production”.

350 Pages :

Rs. 4/4: V.P.P. Rs. 4/10.

CHIEF FEATURES :

- ❖ Retrospects and Prospects of the Indian Cotton Textile Industry, during the War period and Post-War period.
- ❖ Organization of the Cotton Textile Directorate of the Industries and Civil Supplies Department of Government of India and *personnel* of Cotton Textile Board, 1943, and various Committees.
- ❖ “The Cotton Industry at a Glance” giving 16 authoritative and up-to-date Statistical Tables relating to the Industry.
- ❖ Latest Tariff on Piecegoods and Yarn, and Text of Cotton Yarn and Cloth (Control) Order, 1943 with amendments thereto, and Cotton Cloth Movements Control Order, 1943 inclusive of General Permit No. I, and Cotton (Forward Contracts and Options Prohibition) Order, 1943, and amendments thereto.
- ❖ Review of Govt. measures for Control of Prices of Cloth, Control of Future Trading in Cotton, availability of Standard Cloth, etc.
- ❖ Present financial and economic position of the industry.
- ❖ Scope of Exports of Piecegoods.

THREE APPENDICES :

- ❖ An useful Appendix regarding cultivation of superior variety of Cotton, Exports of Cotton, Imports of Cotton, Prices of Cotton, Consumption of Cotton in Indian Mills, etc.
- ❖ A detailed Appendix regarding present position and post-war prospects of Handloom Industry.
- ❖ *Complete and up-to-date* list of Cotton Mills working in India, with names and addresses of Managing Agents, number of Spindles, Looms, etc. (Last Appendix).
- ❖ Contents and Bibliography.

Extracts from Reviews of 1943 Annual (Vol. VII) :

“Commerce”, Bombay, 11 March, 1944.

“The publication maintains its usual high standard and contains a mine of useful information about the industry in general and the Cotton Yarn and Cloth Control in particular”.

“Times of India”, Bombay, Editorial, 15th March, 1944.

“The possibility that some of the forms of rationalization introduced as war measures will remain to assist the cotton industry in the post-war period is suggested in the *Annual*.”

Mr. Gandhi looks forward to a progressive and properly planned State policy in the post-war years.”

NEW & AUTHORITATIVE PUBLICATIONS

The Indian Cotton Textile Industry—1943 Annual (Vol. VII)

Editor : M. P. GANDHI

Foreword by—

Sir Homi Mody, K.B.E.

Publishers : GANDHI & CO.

350 pages Rs. 4/4 : V.P.P. Rs. 4/10

Foreign Edition : Sh. 9/-

**The Indian Sugar Industry—
1943 Annual (Vol. IX)**

Editor : M. P. GANDHI

Publishers : GANDHI & CO.

350 pages Rs. 6/6 : V.P.P. Rs. 6/12

Foreign Edition : Sh. 12/-

Copies of Mr. M. P. Gandhi's various publications and these Annuals will be available, if in stock, at the prices shown below from Messrs. Gandhi & Co. (Publishers), to purchasers of

The Indian Sugar Industry—(1943 Annual)

&/OR

The Indian Cotton Textile Industry—(1943 Annual)

SUGAR

Revised
Price

The Indian Sugar Industry—Its Past, Present & Future, by Mr. M. P. Gandhi—with a Foreword by Seth Walchand Hirachand (1934), 382 pages.

Rs. 5/8

The Indian Sugar Industry—1935 Annual, 125 pages, 1936 Annual, 200 pages, 1937 Annual, 250 pages, and 1938 Annual, 300 pages, each.

Rs. 2/12

The Indian Sugar Industry—1939 Annual.—Foreword by Dr. Rajendra Prasad.

Rs. 4/-

The Indian Sugar Industry—1940 Annual.—Foreword by Dr. Syed Mahmud, 1941 Annual with Foreword by Mr. D. R. Sethi, 1942 Annual with Foreword by Sheth Lalchand Hirachand, (300 pages), each.

Rs. 5/14

COTTON

How to compete with Foreign Cloth—with a Foreword by Sir P. C. Roy (1931), 130 pages.

Rs. 3/12

The Indian Cotton Textile Industry—Its past, present and future, with which is incorporated the 1937 Annual by Mr. M. P. Gandhi—with a Foreword by Sir Purshottamdas Thakurdas, Kt., C.I.E., M.B.E., 240 pages.

Rs. 2/12

The Indian Cotton Textile Industry—1938 Annual, 175 pages, with a Foreword by Subhas Chandra Bose.

Rs. 2/12

The Indian Cotton Textile Industry—1939 Annual with a Foreword by the Hon'ble Dr. K. N. Katju, 1940 Annual with a Foreword by Mr. Nalini Ranjan Sarker, 1941 Annual with a Foreword by Dr. John Matthai, 1942 Annual with a Foreword by Sir C. B. Mehta, each.

Rs. 3/4

To be had of:

Messrs. Gandhi & Co. (Publishers),

Telegrams: "KEEN", BOMBAY.

Jan Mansion, Sir Pheroze Shah Mehta Road,

Telephones: Office : 25961, 24047; Res.: 43926.

Fort, BOMBAY, (INDIA)

N.B.—Book your Advertisement and Copies now for

1944 Indian Cotton Textile Industry Annual : To be Published in November 1944.

1944 Indian Sugar Industry Annual : To be Published in December 1944.

THE INDIAN SUGAR INDUSTRY— (1943 ANNUAL)

C O N T E N T S

	PAGE
Preface	i-iv
Alphabetical List of Advertisers	1-3
Classified List of Advertisers	1-3
46 <i>Statistical Tables</i> in "The Sugar Industry at a Glance" pertaining to the Indian Sugar Industry, 1943	1-xxxvi
" <i>The Sugar Industry at a Glance</i> ," giving text and details regarding Sugar Protection Act, Sugar Control Board, U. P. & Bihar Commission, U. P. and Bihar Sugar Control Acts, Sugar Control Order, 1942, Prices fixed thereunder, Government's decision not to decontrol Sugar, etc, etc.	xxxvii-lxviii
Do You Know?	1-2
Bibliography	1-2
<i>Future of Sugar Industry in India</i> —Being a Speech by Mr. M. P. Gandhi delivered before the Rotary Club, Ahmedabad, on the 3rd December 1943	i-xi
<i>The Indian Sugar Industry—1943 Annual—A Review of the Sugar Industry in India during the 1942-43 Season and Comments on the 1943-44 Season :</i>	
Introductory	1
Industry affected by War, at a late Stage	2
Sugar Industry's Controlled Profits	2
Comparison with Cotton Textile Industry	3
Effects of War on Sugar Prices	4
Restricted Production in 1910-11 and 1941-42	5
Central Control over Industry in April 1942	5
Present Aim of Control to Maximize Production	6
Minimum Price of Cane fixed at Re. 0-8-0 in 1942-43	7
Increase in Cane Price to Re. 0-10-0 per Maund	7
Gur Control instituted in July 1942	8
Increase in Sugar Price by Rs. 2-5-0 per Maund in January 1943	8
Fixation of Minimum Price of Cane at Re. 0-12-0 in 1943-44	9
Record Production in 1943-44	10
Delayed Payment of Re. 0-2-0 in Defence Savings Stamps to Cultivators	10

	PAGE
Increase in Sugar Price of only 0-13-0 from 10th November 1943 and Increase of Cane Cess in U. P. and Bihar in 1943-44 ...	11
Prospects for 1944-45	12
Rationing of Sugar in Urban Centres. No Necessity of Drastic Cut in Supplies	12
Chief Features of the 1942-43 Season	14
Aims of Gur Control Order, 1942	15
Better Working of Sugar Control Scheme	15
Better Recovery : Lower Quality	16
All-India Marketing Organization Essential	16
Details of Working of the Season 1942-43	16
Duration of Working Days	17
Distribution of Factories according to Number of Days worked in 1942-43 and 1941-42	18
Quantities of Cane Crushed by Factories in 1942-43 and 1941-42 ...	18
Quantity of Sugar produced in 1942-43 and 1941-42	19
Percentage of Recoveries of Sugar from Cane	20
Sugar Production Forecast in 1943-44 Season	21
Sulphur Supplies and Sugar Production	22
Technical Assistance to Factories	24
Sugar and Sugarcane Prices for 1943-44	25
Temporary Sugar Excise Duty Ordinance, 1943	27
Procedure for Special Excise Assessment	27
Bihar and U. P. fix Minimum Prices of Cane for 1943-44 at 12 annas per Maund	27
Comments on Increase in Sugar Price of 0-13-0 only—Press Note issued by Mr. M.P. Gandhi, Editor, Indian Sugar Industry Annual	30
Schedule of Sugar Prices for 1943-44	32
Life of U. P. and Bihar Control Acts extended Further	32
Bihar Control Rules amended	34
Sugarcane Survey for India (1943-44)	35
Transport Difficulties in U. P. and Bihar	35
Central Sugarcane Committee	36
Estimated Production of Sugar in 1943-44 Season	37
Area under Sugarcane in 1943-44	39
Gur Control Order, 1943	40
Sugar Enquiry Committee, Bengal, 1942-43	47
No Appreciable Increase in Exports : Increased Internal Consumption	50
No Change in Protective Duty till March 1946	50
The U. P. Power Alcohol Act, 1940 (Act VIII of 1940)	51
Power Alcohol Act in Bihar passed in 1942	53
Power Alcohol in Nizam Hyderabad	53

	PAGE
Power Alcohol Act in Bombay	53
Power Alcohol Manufacture in U. P.	54
Molasses Control in U. P.—Government's Order of September 1942	54
Molasses Control: Central Control still delayed	54
Lack of Foresight in promoting Manufacture of Power Alcohol ...	56
All-India Provision for Fuel Alcohol—Fuel Alcohol Order, 1943 ...	56
Burma Sugar Factories in Enemy Occupation	56
Fluctuating Area under Cane	57
Improved Quality of Cane essential for Prosperity	57
Uses of Cane	58
Percentage of Cane crushed in Factories to the Total Cane-crop in respective Provinces	59
Increase in Area under Cane	60
Production of Sugar by Khandsari and from Gur	60
Definition of Khandsari Sugar	62
Position of Khandsari Manufacture	63
Importance of Sugar Industry in the National Economy	64
Consumption of Sugar	64
Value of Imports of Sugar and Revenue from Import Duty in the last 21 years	66
Present Protection to the Industry to continue for the Duration of War?	66
Protection to the Industry and Consumers	66
Protection to the advantage of the Country	67
Imposition of Excise Duty from 1934 pertaining to Sugar	68
Increase in Excise Duty from 1937	68
Sugarcane Act, 1934	68
Sugar Industry (Protection) Act extended upto 1946	69
Change in Excise Duty on Khandsari Sugar	69
Further Increase in Excise Duty in 1940	69
Prohibition of Export of Sugar by Sea	69
Ban on Export of Sugar by Sea lifted in September 1942	70
Minimum Cane Price Fixation in the Provinces and States	70
Cess on Cane of 0-0-6 per maund in U. P. and Bihar from 1939-40	70
Cane Cess reduced to 0-0-3 per maund in 1940-41	71
U. P. and Bihar Sugar Control Board	71
Sugar and Sugar Products Control Order, 1943, and Gur Control Order, 1943	71
Extension of U. P. and Bihar Sugar Control Acts till 1946-47	72
Miscellaneous Legislation in 1942 and 1943	72
Non-varying Minimum Price of Cane for 1941-42, 1942-43 and 1943-44 Seasons in the United Provinces and Bihar	72
Sugar Refined from Gur	73

	PAGE
Production of Sugar and Molasses in India by Gur Refineries ...	74
Present Position of Companies	74
Total Consumption of Sugar including Gur (Raw Sugar) in India	76
Per Capita Consumption of Sugar and Gur	76
Effect of Sugar Prices on its Consumption	76
Capital and Net Block of Sugar Companies, and Dividends since 1935	77
Sugarcane—Necessity of Improvement in Cultivation ...	80
Extension of Cane-cultivation or Improvement?	81
Diseases in Cane and Pests must be eradicated	81
Education of Cultivators by Demonstration of Improved Methods	82
Improvement of Cane Crop	83
Valuable Educational Effect of Cane-crop	84
Imperial Council's Commendable Work for Industry ...	84
Improvement in Yield possible in India	85
Rotational Trials	86
Ratooning	86
Allocation of Sugar Excise Fund for Improvement of Cane ...	86
Cane Development in U. P. in 1942-43	87
Development and Marketing of Sugarcane in U. P. in the Year 1942-43	87
U. P. Cane Commissioner's Activities in 1942 and 1943 ...	89
U. P. Regional Sugarcane Committees, 1943	90
Sugarcane Research Work done at Shahjahanpur during 1942-43	91
Sugarcane Research Work in Bihar during 1942-43	91
Bihar Sugarcane Advisory Committee, 1943	91
Canegrowers' Co-operative Societies in Bihar in 1941-42 ...	92
Paramount Need for Research Work emphasized	93
Improvement in Cultivation most essential	94
Imperial Institute of Sugar Technology, Cawnpore	94
Cost of Cultivation of Cane and Fair Price of Cane	95
Sugar Committee Meeting in 1943	96
Sixteenth Sugar Committee Meeting in November 1943 ...	96
Marketing Survey of Sugar—Report published in 1943 ...	97
Proportion of Gate-cane to Rail-cane crushed in Factories in India	97
Factories Definitely prefer Gate-cane	98
Problem of Utilisation of Molasses	98
The Governments of U.P. & Bihar Joint Molasses Committee (1937-38)	99
Madras Power Alcohol Committee	100
Power Alcohol in Mysore	100
Precaution in using Power-Alcohol-Petrol Mixture	101

	PAGE
Utilisation of Bagasse produced in Factories ...	101
Plastics from Bagasse ...	102
Report on Research in Utilisation of Bagasse published ...	102
Sound Absorbing Materials from Bagasse ...	102
Problem of Marketing Sugar ...	103
Production, Consumption and per capita Consumption of Sugar by Provinces ...	104
Bureau of Sugar Standards ...	104
Indian Sugar Syndicate's Activities in 1943 ...	105
Co-operation of Railways ...	106
Expenditure on Research and Investigation benefits All Rs. 20 lakhs per annum must be spent on Cane-research ...	107
Magnificent Development of the Industry ...	108
Future of Industry depends on Increasing Yield of Cane ...	108
Subsidiary Industries like Confectionery, Syrups, etc. ...	108
Estimate of Cost of Manufacture of Sugar in Factories—Greatly Increased Cost due to War ...	109
Sugar Industry Profits least during the War ...	109
Central Sugarcane Committee ...	110
Extension of the Term of the Sugar Committee ...	110
Bihar Labour Enquiry Committee ...	110
India free to export Sugar from September 1942 ...	110
The Position of the Industry in Madras in 1942-43 ...	111
Mysore duplicates Distillery Plant in 1942-43 ...	111
The Industry in Bombay-Deccan in 1942-43 ...	112
1942-43 Cane-crushing Season in Bombay ...	112
Sugar Production in the United Kingdom and other Countries ...	113
India the Biggest Producer in the Empire and the World ...	115
World Production and Consumption of Sugar ...	116
Sugar Production in Cuba decreasing ...	117
Rationing in the United States ...	117
International Agreement renewed by Fourteen Countries (but not by India) ...	118
Post-War Reconstruction ...	118
Sugar Manufacture on Cottage Industry Scale ...	119
Relation between Labour and Capital in Factories in 1943 ...	119
Assistance to Industry by Provincial Governments necessary ...	120
Assistance to Industry by Central Government and Legislatures ...	121
Need of All-India Marketing Organization ...	121
Indian Sugar Industry's Remarkable Progress must be continued ...	122
 List of Sugar Factories in India (Appendix I) ...	 1-42

THE INDIAN SUGAR INDUSTRY — 1943 ANNUAL

The earlier portion of this Annual entitled
"THE SUGAR INDUSTRY AT A GLANCE"
is very interesting and instructive.

Give it your attention.

Two pages entitled "DO YOU KNOW
THAT?" are interesting, and contain up to date
and interesting information regarding the
Indian and World Sugar Industry.

A perusal will convince you.

CALCUTTA NATIONAL BANK LIMITED



Head Office: Calcutta National Bank Buildings, Mission Row Calcutta. *Bombay Offices:* (1) Sir Pheroze Shah Mehta Road, Fort, Bombay. (2) 188, Kalbadevi Road, Bombay 2.

'CALCUTTA NATIONAL' is a highly respectable Indian Institution. Its vast resources ensure safety of your deposits. Its experience and its India-wide organisation perfected in course of a number of years guarantee dependable Banking service to you.

Other Offices:

Calcutta, Burrbazar, Shambazar, Ballygunj, Bhowanipore, Dacca, Narayanganj, Mymensingh, Chittagong, Delhi, Lahore, Cawnpore, Meston Road (Cawnpore), Patna, Gaya, Cuttack, Benares, Madras, Lucknow, Aminabad (Lucknow), Allahabad, Katra (Allahabad), Agra, Meerut, Ajmer, Bareilly, Karachi, Ahmedabad, Nagpur, Itwari (Nagpur), Raipur, Jubbulpore, Jubbulpore Cantt. Amraoti.

SAVINGS BANK ACCOUNTS of the Bank are very popular. You can open a Savings Bank Account with us with Rs. 5. Interest at the rate of $1\frac{1}{2}$ per cent is paid and cheque books are supplied to Account holders. Withdrawals by cheques once a week upto Rs. 1,000.

CURRENT ACCOUNTS: Interest allowed at $\frac{1}{2}$ per cent.

FIXED DEPOSITS received and LOANS and ADVANCES made on very favourable terms.

ALL SORTS OF BANKING BUSINESS TRANSACTED

ALPHABETICAL LIST OF ADVERTISERS

IN

THE INDIAN SUGAR INDUSTRY

1943 ANNUAL

Editor :—MR. M. P. GANDHI

Publishers : GANDHI & CO. (Publishers),

Jan Mansion, Sir Phirozshah Mehta Road, Fort, Bombay.

Telephones . 25961, 24047.

Res. : 43926.

Telegrams : "KEEN", BOMBAY.

A

Adamjee Jute Mills, Ltd.
Advance Insurance Co., Ltd.
Agarpara Co., Ltd.
Allen Berry & Co., Ltd.
Amrut Oil Mills.
Anand Sugar Mills, Ltd.
Andhra Bank, Ltd.
Arthur Butler & Co. (Moz.) Ltd.
Assam Bengal Cement Co., Ltd.

B

Babcock & Wilcox, Ltd.
Balmer Lawrie & Co., Ltd.
Bank of Baroda, Ltd.
Bank of Behar, Ltd.
Bank of India, Ltd.
Basti Sugar Mills Co., Ltd.
Bata Shoe Co., Ltd.
Begg Sutherland & Co., Ltd.
Behar Sugar Works.
Bengal-Nagpur Railway.
Bengal Potteries, Ltd.
Bhagat Singh Bugga & Co.
Bharat Bank, Ltd.
B. B. & C. I. Railway.
Bombay Enamel Works, Ltd.
Bombay Match & General Mfg. Co.
Bombay Mutual Life Assurance
Soc., Ltd.
Bombay Soap Factory.
Brady & Co., Ltd., W. II.
Brushware, Ltd.

C

Cement Marketing Co. of India, Ltd.
Chemical, Industrial & Pharmaceu-
tical Laboratories, Ltd.
Choonilal Manilal, Ltd.

Comilla Banking Corporation, Ltd.
Commercial Insurance Co., Ltd.
Cooper Engineering, Ltd.

D

Dalmia-Jain Enterprises.
Delhi Cloth & General Mills Co., Ltd.
Devkaran Nanjee Banking Co., Ltd.
Devkaran Nanjee Insurance Co., Ltd.
Dhrangadhra Chemical Works, Ltd.
Director of Industries, Bengal.
Dyer's Stone Lime Co., Ltd.

E

Eastern Chemical Co., (India).
E. I. & B. & A. Railways.
Elephant Oil Mills, Ltd.
Elgin Mills Co., Ltd.
Estrela Batteries, Ltd.
Excelsior Finishing Products Co., Ltd.
Eyre Smelting Co., Ltd.

G

Ganesh Sugar Mills, Ltd.
Ganges Rope Co., Ltd.
Garlick & Co.
Gas & Metal Operators.
Gerhard Gabriel.
Godrej & Boyce Mfg. Co., Ltd.
Goodyear Tyre & Rubber Co., (India)
Ltd.

Graphite Products Co.
G. I. P. Railway
Gujarat Paper Mills, Ltd.

H

Habib Bank, Ltd.
Habib Insurance Co., Ltd.
Hadfield's (India), Ltd.

Harinagar Sugar Mills, Ltd.
 Harley & Co., F.
 Harton & Co., Ltd., W. H.
 Hind Bank, Ltd.
 Hind Tank Manufacturing Co.
 Hindustan Commercial Bank, Ltd.
 Hindustan Mercantile Bank, Ltd.
 Hindusthan Aromatics Co.
 Hindusthan Co-op. Ins. Society, Ltd.
 Hindusthan Sugar Mills, Ltd.
 Hoyle, Robson, Barnett & Co., (I.) Ltd.
 H. R. Sugar Factory, Ltd.

I

India Electric Works, Ltd.
 India Machinery Co., Ltd.
 India Rolling Mills, Ltd.
 Indian Bank, Ltd.
 Indian Hume Pipe Co., Ltd.
 Indian Red Lead Factory, Ltd.
 Indian Smelting & Refining Co., Ltd.
 Indian Standard Metal Co., Ltd.
 Indian Steel & Wire Products, Ltd.
 Indian Sugar Syndicate, Ltd.
 Indian Tea Market Expansion Board
 Indian Tool Manufacturing Co., Ltd.
 Indo-Commercial Bank, Ltd.
 Investa Machine Tools & Engineering
 Co., Ltd.

J

Jas. Alexander & Co., Ltd.
 Jaswant Strawboard Mills, Ltd.
 Jayant Metal Mfg. Co.
 Jeewanlal (1929) Ltd.
 Jenson & Nicholson (India) Ltd.
 Jitan Ram Nirmal Ram.
 J. K. Industries.
 John Thompson Wolverhampton
 (Ind.) Ltd.
 Jupiter General Ins. Co., Ltd.
 Jupiter Investment Trust, Ltd.
 Jyoti, Ltd.

K

Kantawala Nanavati & Co., Ltd.
 Karam Chand Thapar & Bros., Ltd.
 Kesar Sugar Works, Ltd.
 Kilburn & Co.
 Kumardhubi Engineering Works, Ltd.
 Kumardhubi Fireclay & Silica Works,
 Ltd.

L

Lakshmi Insurance Co., Ltd.
 Lakshmiji Sugar Mills Co., Ltd.
 Lallubhai Amichand.
 Laxmi Bank, Ltd.
 Lever Brothers (India), Ltd.
 Lister Antiseptics & Dressings Co.,
 (1928) Ltd.
 Lucas Indian Service, Ltd.

M

Madras & Southern Mahratta
 Railway Co., Ltd.
 Mahalaxmi Cotton Mills, Ltd.
 Maharashtra Sugar Mills, Ltd.
 Marsland Price & Co., Ltd.
 Modi Industries.
 Mohamedalli & Co., Quettawalla.
 Motilal Padampat Sugar Mills Co.,
 Ltd.
 Mukand Iron & Steel Works, Ltd.
 Muraco Gas Plant, Ltd.
 Mysore Sugar Co., Ltd.

N

Nanlal Ambalal & Co.
 Narang Industries, Ltd.
 National Art & Silk Mills, Ltd.
 National Bank of Lahore, Ltd.
 National Drug Co., Ltd.
 National Insurance Co., Ltd.
 National Savings Bank, Ltd.
 Nawabganj Sugar Mills Co., Ltd.
 New Asiatic Insurance Co., Ltd.
 New Era Textile Mills, Ltd.
 New Great Insurance Co., Ltd.
 New India Assurance Co., Ltd.
 Nizam Sugar Factory, Ltd.
 North Bengal Sugar Mills Co., Ltd.

O

Orient Paper Mills, Ltd.
 Oriental Pharmaceutical Industries,
 Ltd.
 Oudh Sugar Mills, Ltd.

P

Parry & Co., Ltd.
 Parsee Trading Co.
 Phaltan Sugar Works, Ltd.
 Pioneer Magnesia Works, Ltd.
 Playfair & Co., G. F.

Port Engineering Works, Ltd.
Punjab National Bank, Ltd.

R

Raj-Der-Kar & Co.
Ravalgaon Sugar Farm, Ltd.
Reliance Firebrick & Pottery Co., Ltd.
Royal Fancy Sweetmeat Saloon.
Ruby General Insurance Co., Ltd.

S

Saran Engineering Co., Ltd.
Saswad Mali Sugar Factory, Ltd.
Scientific Indian Glass Co., Ltd.
Shalimar Paint, Colour & Varnish
Co., Ltd.
Shaparia Iron & Steel Works, Ltd.
Shree Hanuman Sugar Mills, Ltd.
Shri Ambica Steam Navigation Co.,
Ltd.
Silvertown Lubricants (India), Ltd.
S. K. F. Ball Bearing Co., Ltd.
South Behar Sugar Mills, Ltd.
Standard Trading Agency, Ltd.
Star Metal Refinery.

Steel Products, Ltd.
Sunderdas Saw Mills.
Swaika Chemical & Mineral Co., Ltd.
Swastika Confectionery.
Sylhet Lime Co., Ltd.

T

Tata Chemicals, Ltd.
Tata Iron & Steel Co., Ltd.
Traders' Bank, Ltd.

U

United Commercial Bank, Ltd.

V

Vizagapatam Sugars & Refinery, Ltd.
Vulcan Insurance Co., Ltd.

W

Watson Laidlaw & Co., Ltd.
William Jacks & Co., Ltd.
Worthington-Simpson, Ltd.

Z

Zaveri & Co., C. A.
Zill & Co.

The only Indispensable & Authoritative Annual Reference
Book for the Indian Sugar Industry

THE INDIAN SUGAR INDUSTRY—

(1943 ANNUAL)

Vol. IX

Editor : Mr. M. P. GANDHI

350 Pages:

Price Rs. 6-6-0; V.P.P. Rs. 6-12-0.

— CHIEF FEATURES —

- Retrospects and Prospects of the Sugar Industry in India in 1942-43 and 1943-44, and position in world economy.
- *Modus Operandi* of the Indian Sugar Syndicate Ltd., Cawnpore.
- "The Sugar Industry at a Glance", containing 46 Statistical Tables pertaining to production and consumption of Sugar, imports and exports of Sugar, Production of Gur, Cane-crop, Duty and Revenue from Sugar, etc.
- The Sugar Industry (Protection) Act, 1939, Protective Duties Continuation Act, 1944, and Sugar (Temporary Excise Duty) Order, 1943. (Texts).
- The Sugar and Sugar Products Control Order, 1943, of the Government of India, with the latest amendments, the Gur Control Order, 1943, and other important Notifications.
- *Personnel* of U. P. and Bihar Sugar Control Board, 1943-44.
- Details re. U. P. & Bihar Sugar Commission, Cawnpore.
- Necessity of Regulation of Industry on an All-India basis.
- Discussion on Export Prospects, Sugar Control Policy, and Rationing.
- Proposed Central Sugarcane Committee, 1944.
- Comparative position of the Industry in various parts of India.
- Capital and Dividend Statement of Sugar Mills. (Latest.)
- *Complete and up-to-date list of Sugar Mills*, working and projected, with addresses of Managing Agents, etc.
- Contents and Bibliography.

Extract from Reviews of 1942 Annual

"The International Sugar Journal", London, March, 1944.

"Mr. Gandhi's annual volume is stocked with statistical and other information about the Indian sugar industry. A large part is devoted to the numerous and complicated legal enactments and Controller's Orders covering sugar production and sale in India, arising from the assumption of control by the Government of prices and distribution. The author also provides a good deal of comment on present problems of the Indian Sugar Industry and its future prospects."

Another Recent and Authoritative Publication :

THE INDIAN COTTON TEXTILE INDUSTRY—1943 ANNUAL

Editor : M. P. GANDHI—With a foreword by Sir HOMI MODY, K.B.E.

350 Pages:

Price Rs. 4/4 V.P.P. Rs. 4/10 Foreign Edition Sh. 9/-

CLASSIFIED LIST OF ADVERTISERS
IN
THE INDIAN SUGAR INDUSTRY
1943 ANNUAL

Editor: **MR. M. P. GANDHI**

Publishers: **GANDHI & CO. (Publishers),**

Jan Mansion, Sir Phirozshah Mehta Road, Fort, Bombay.

Telephones: 25961, 21017.

Res.: 43926.

Telegrams: "KEEN", BOMBAY.

Banks

Andhra Bank, Ltd.
 Bank of Baroda, Ltd.
 Bank of Behar, Ltd.
 Bank of India, Ltd.
 Bharat Bank, Ltd.
 Comilla Banking Corporation, Ltd.
 Devkaran Nanjee Banking Co., Ltd.
 Habib Bank, Ltd.
 Hind Bank, Ltd.
 Hindustan Commercial Bank, Ltd.
 Hindustan Mercantile Bank, Ltd.
 Indian Bank, Ltd.
 Indo-Commercial Bank, Ltd.
 Jupiter Investment Trust, Ltd.
 Laxmi Bank, Ltd.
 National Bank of Lahore, Ltd.
 National Savings Bank, Ltd.
 Punjab National Bank, Ltd.
 Traders' Bank, Ltd.
 United Commercial Bank, Ltd.

Cement Companies

Assam Bengal Cement Co., Ltd.
 Cement Marketing Co. of India, Ltd.
 Dalmia-Jain Enterprises.

**Chemical & Pharmaceutical
Concerns**

Chemical, Industrial &
 Pharmaceutical Laboratories, Ltd.
 Delhi Cloth & General Mills Co., Ltd.
 Dhrangadhra Chemical Works, Ltd.
 Eastern Chemical Co., (India)
 Excelsior Finishing Products Co., Ltd.
 Hindusthan Aromatics Co.
 Lister Antiseptics & Dressings Co.
 (1928) Ltd.

Narang Industries, Ltd.
 National Drug Co., Ltd.
 Oriental Pharmaceutical Industries, Ltd.
 Pioneer Magnesia Works, Ltd.
 Swaika Chemical & Mineral Co., Ltd.
 Tata Chemicals, Ltd.
 Zill & Co.

Cotton Textile, Silk & Jute Mills

Adamjee Jute Mills, Ltd.
 Agarpara Co., Ltd.
 J. K. Industries.
 Mahalaxmi Cotton Mills, Ltd.
 National Art and Silk Mills, Ltd.
 New Era Textile Mills, Ltd.

**Engineering Concerns, Mill Gin
Stores & Hardware Dealers**

Allen Berry & Co., Ltd.
 Arthur Butler & Co., (Moz.) Ltd.
 Babcock & Wilcox, Ltd.
 Balmer Lawrie & Co., Ltd.
 Bengal Potteries, Ltd.
 Bombay Enamel Works, Ltd.
 Brady & Co., Ltd., W. H.
 Choonilal Manilal, Ltd.
 Cooper Engineering, Ltd.
 Dalmia-Jain Enterprises.
 Elgin Mills Co., Ltd.
 Estrela Batteries, Ltd.
 Eyre Smelting Co., Ltd.
 Garlick & Co.
 Gas & Metal Operators.
 Gerhard Gabriel.
 Graphite Products Co.
 Hind Tank Manufacturing Co.
 India Electric Works, Ltd.
 India Machinery Co., Ltd.

India Rolling Mills, Ltd.
 Indian Hume Pipe Co., Ltd.
 Indian Smelting & Refining Co., Ltd.
 Indian Standard Metal Co., Ltd.
 Indian Steel & Wire Products, Ltd.
 Indian Tool Mfg. Co., Ltd.
 Investa Machine Tools & Engineering Co., Ltd.

Jas. Alexander & Co., Ltd.
 Jayant Metal Mfg. Co.
 Jeewanlal (1929) Ltd.
 John Thompson Wolverhampton (India), Ltd.

Jyoti, Ltd.
 Kantawala Nanavati & Co., Ltd.
 Kilburn & Co.
 Kumardhubi Engineering Works, Ltd.
 Kumardhubi Fireclay & Silica Works, Ltd.

Lallubhai Amichand.
 Lucas Indian Service, Ltd.
 Mohamedalli & Co., Quettawalla.
 Mukand Iron & Steel Works, Ltd.
 Muraco Gas Plant, Ltd.
 Nanalal Ambalal & Co.
 Playfair & Co., G. F.
 Port Engineering Works, Ltd.
 Raj-Der-Kar & Co.
 Reliance Firebrick & Pottery Co., Ltd.
 Saran Engineering Co., Ltd.
 Shaparia Iron & Steel Works, Ltd.
 S. K. F. Ball Bearing Co., Ltd.
 Standard Trading Agency, Ltd.
 Star Metal Refinery.
 Steel Products, Ltd.
 Tata Iron & Steel Co., Ltd.
 Watson Laidlaw & Co., Ltd.
 William Jacks & Co., Ltd.
 Worthington-Simpson, Ltd.
 Zaveri & Co.

Glass Manufacturers

Scientific Indian Glass Co., Ltd.
 Sodepur Glass Works, Ltd.
 (Jitan Ram Nirmal Ram).

Industrial Concerns

Begg Sutherland & Co., Ltd.
 Bombay Match & General Mfg. Co.
 Jaswant Strawboard Mills, Ltd.
 Jitan Ram Nirmal Ram.
 J. K. Industries.

Karam Chand Thapar & Bros., Ltd.
 Modi Industries.
 Narang Industries, Ltd.
 Parry & Co., Ltd.
 Playfair & Co., G. F.
 Raj-Der-Kar & Co.

Industries Departments

Department of Industries, Bengal

Insurance Companies

Advance Insurance Co., Ltd.
 Bombay Mutual Life Assurance Society, Ltd.
 Commercial Insurance Co., Ltd.
 Devkaran Nanjee Insurance Co., Ltd.
 Habib Insurance Co., Ltd.
 Hindusthan Co-operative Insurance Society, Ltd.
 Jupiter General Insurance Co., Ltd.
 Lakshmi Insurance Co., Ltd.
 National Insurance Co., Ltd.
 New Asiatic Insurance Co., Ltd.
 New Great Insurance Co., Ltd.
 New India Assurance Co., Ltd.
 Ruby General Insurance Co., Ltd.
 Vulcan Insurance Co., Ltd.

Lime Manufacturers

Dyer's Stone Lime Co., Ltd.
 Sylhet Lime Co., Ltd.

Lubricating Oil Manufacturers
 Silvertown Lubricants (India), Ltd.

Manufacturers' Representatives, and Importers and Exporters
 Bhagat Singh Bugga & Co.
 Parsee Trading Co.
 Zaveri & Co.
 Zill & Co.

Paints, Dyes and Colour Manufacturers

Elephant Oil Mills, Ltd.
 Excelsior Finishing Products Co., Ltd.
 Hadfield's (India), Ltd.
 Hoyle, Robson, Barnett & Co. (India), Ltd.
 Indian Red Lead Factory, Ltd.
 Jensen & Nicholson (India), Ltd.
 Pioneer Magnesia Works, Ltd.
 Shalimar Paint, Colour and Varnish Co., Ltd.

Paper Mills

Gujarat Paper Mills, Ltd.
Orient Paper Mills, Ltd.
Shri Gopal Paper Mills, Ltd.
(Karam Chand Thapar & Bros., Ltd)

Publishers

Gandhi & Co. (Publishers).
Indian Sugar Syndicate, Ltd.

Railways

Bengal & Assam Railway.
Bengal-Nagpur Railway.
Bombay, Baroda & Central India
Railway.
East Indian Railway.
Great Indian Peninsula Railway.
Madras & Southern Mahratta
Railway.

Rope Manufacturers

Ganges Rope Co., Ltd.
Harton & Co., Ltd., W. H.

Safe Manufacturers

Godrej & Boyce Mfg. Co., Ltd.

Saw Mills

Sunderdas Saw Mills.

Soap Manufacturers and Oil Mills

Amrut Oil Mills.
Bombay Soap Factory.
Elephant Oil Mills, Ltd.
Godrej Soaps, Ltd.
Jitan Ram Nirmal Ram.
Lever Brothers (India), Ltd.

Steamship Companies

Shri Ambica Steam Navigation Co.,
Ltd.

Sugar Mills & Confectioneries

Anand Sugar Mills, Ltd.
Bastu Sugar Mills Co., Ltd.
Begg Sutherland & Co., Ltd.
Behar Sugar Works.
Dalania-Jain Enterprises.
Delhi Cloth & General Mills Co., Ltd.
Ganesh Sugar Mills, Ltd.
Harinagar Sugar Mills, Ltd.
Hindustani Sugar Mills, Ltd.
H. R. Sugar Factory, Ltd.
Kesar Sugar Works, Ltd.
Lakshmi Sugar Mills Co., Ltd.
Malma Sugar Mills, Ltd.
Marsland Pike & Co., Ltd.
Motilal Padampat Sugar Mills Co.,
Ltd.
Mysore Sugar Co., Ltd.
Nawabganj Sugar Mills Co., Ltd.
Nizam Sugar Factory, Ltd.
North Bengal Sugar Mills Co., Ltd.
Oudh Sugar Mills, Ltd.
Phaltan Sugar Works, Ltd.
Ravalgaon Sugar Farm, Ltd.
Royal Fancy Sweetmeat Saloon.
Saswad Mali Sugar Factory, Ltd.
Shree Hanuman Sugar Mills, Ltd.
South Behar Sugar Mills, Ltd.
Swastika Confectionery.
Vizagapatam Sugars & Refinery,
Ltd.

**Waterproof & Rubber Products
Manufacturers**

Bata Shoe Co., Ltd.
Goodyear Tyre & Rubber Co. (India),
Ltd.
Harley & Co., F.

NEW & AUTHORITATIVE PUBLICATIONS

The Indian Cotton Textile Industry—1943 Annual (Vol. VII)

Editor : M. P. GANDHI

Foreword by—

Sir Homi Mody, K.B.E.

Publishers : GANDHI & CO.

350 pages Rs. 4/4 : V.P.P. Rs. 4/10

Foreign Edition : Sh. 9/-

**The Indian Sugar Industry—
1943 Annual (Vol. IX)**

Editor : M. P. GANDHI

Publishers : GANDHI & CO.

350 pages Rs. 6/6 : V.P.P. Rs. 6/12

Foreign Edition : Sh. 12/-

Copies of Mr. M. P. Gandhi's various publications and these Annuals will be available, if in stock, at the prices shown below from Messrs. Gandhi & Co. (Publishers), to purchasers of

The Indian Sugar Industry—(1943 Annual)

&/OR

The Indian Cotton Textile Industry—(1943 Annual)

SUGAR

Revised
Price

The Indian Sugar Industry—Its Past, Present & Future, by Mr. M. P. Gandhi—with a Foreword by Seth Walchand Hirachand (1934), 382 pages.

Rs. 5/8

The Indian Sugar Industry—1935 Annual, 125 pages, 1936 Annual, 200 pages, 1937 Annual, 250 pages, and 1938 Annual, 300 pages, each.

Rs. 2/12

The Indian Sugar Industry—1939 Annual.—Foreword by Dr. Rajendra Prasad.

Rs. 4/-

The Indian Sugar Industry—1940 Annual.—Foreword by Dr. Syed Mahmud, 1941 Annual with Foreword by Mr. D. R. Sethi, 1942 Annual with Foreword by Sheth Lalchand Hirachand, (300 pages), each.

Rs. 5/14

COTTON

How to compete with Foreign Cloth—with a Foreword by Sir P. C. Roy (1931), 130 pages.

Rs. 3/12

The Indian Cotton Textile Industry—Its past, present and future, with which is incorporated the 1937 Annual by Mr. M. P. Gandhi—with a Foreword by Sir Purshotamdas Thakurdas, Kt., C.I.E., M.B.E., 240 pages.

Rs. 2/12

The Indian Cotton Textile Industry—1938 Annual, 175 pages, with a Foreword by Subhas Chandra Bose.

Rs. 2/12

The Indian Cotton Textile Industry—1939 Annual with a Foreword by the Hon'ble Dr. K. N. Katju, 1940 Annual with a Foreword by Mr. Nalini Ranjan Sarker, 1941 Annual with a Foreword by Dr. John Matthai, 1942 Annual with a Foreword by Sir C. B. Mehta, each.

Rs. 3/4

To be had of:

Messrs. Gandhi & Co. (Publishers),

Telegrams: "KEEN", BOMBAY.

Jan Mansion, Sir Pherozeshah Mehta Road,

Telephones: Office : 25961, 24047; Res.: 43926.

Fort, BOMBAY, (INDIA)

N.B.—Book your Advertisement and Copies now for

1944 Indian Cotton Textile Industry Annual : To be Published in November 1944.

1944 Indian Sugar Industry Annual : To be Published in December 1944.

PREFACE

The season 1942-43 will remain memorable, as a season in which the maximum production of factory sugar was achieved in India ever since the grant of protection to this industry in 1932. Although the output estimated, at present, according to official sources is about 12,13,000 tons, which is slightly smaller than the output of 1939-40, viz. 12,41,700 tons, we feel that the final figures of production will turn out to be about 12,50,000 tons due to the fact that several factories in the U. P. and other parts of the country were working even during the month of May. This increase in sugar production in India in spite of various handicaps and difficulties like that of unavailability of suitable quality and quantity of sulphur, coal and other ingredients, is an indication of the strides which the Indian industry has been making during recent years.

The 1943-44 season thus marks a successful all-out effort made by the industry to produce the maximum quantity of sugar required for meeting the increased total consumption of sugar in the country as well as the requirements of the Defence Services and the neighbouring countries. There is little doubt that with a little encouragement to the industry it would be possible for India to produce 15,00,000 tons of sugar even with the existing capacity, provided it is utilised fully. We feel that such an increase in production is called for in the next and subsequent seasons for various reasons, including our growing requirements, as also the fact that sugar is one of the cheapest, most universally used and palatable sweetening agent of proved high calorific value, unique for quick conversion into energy, containing 100 per cent carbohydrate, whose value as a prime and vital food is enhanced due to the shortage of carbohydrates in general all over the world. It would be remembered that at the Hot Springs Conference held in 1943, great emphasis was laid on increased production of sugar which constitutes an important source of pure carbohydrate, due to the shortage of energising foods like potatoe, cereals and sugar in the world.

As three of the greatest sugar-producing areas, Philippines, Java and Russia have been either destroyed or locked up in the hands of the enemy, and as many other areas in Europe are in questionable condition in respect of fields and factories, we cannot help feeling that the world sugar shortage may continue beyond 1946. In view of this position it would be of great help if the production of sugar in India could be increased to its maximum capacity at the earliest date.

We might like to point out that the total allocation of sugar for consumption in India during the 1943-44 season has been 9,94,500 tons as compared to 9,16,350 tons in 1942-43. The increase in the allotment of sugar for consumption in the country could have been and should have been larger in view of the greatly increased production this season. We earnestly urge the Government to make available larger quantities of sugar for consumption in the country in view of the great necessity of providing energising foods containing pure carbohydrates.

We would also like to state our conviction here that rationing to the extent that has been adopted by the Government in the country is not necessary and we also feel at the same time that concerted efforts are necessary for making available sugar in reasonable quantities and at reasonable rates in the rural areas which are practically starved of supplies of sugar except at exorbitant rates. We are not unaware of the practical difficulties facing Government, but we do feel that an all-out effort is required at the hands of the Provincial Governments for easing the problem of supplies of sugar to the people at suitable rates.

Turning to the Post-war problems in relation to this industry, we are convinced that larger quantities of sugar would be required for consumption in the country itself in view of the present remarkably low consumption of sugar in the country. In order to improve the standard of living of the people it would be essential to increase the *per capita* consumption to a very large extent. The Post-war reconstruction scheme sponsored by eight prominent industrialists makes a pointed reference to this fact and immediate attention should be paid, in our opinion, to this matter of increased production of sugar in the country.

The question of establishment of more sugar factories in India and increasing the capacity of present ones by additions to the plants is at the moment engaging the attention of the various Provincial Governments and Indian States. In this connection we feel it is our duty to reiterate our opinion that any further expansion of the industry should be outside the Provinces of the U. P. and Bihar, where sugar production is heavily concentrated, in order that a more balanced development of the industry might be achieved, and the strain on the transport service may be reduced as much as possible.

We regret that, as on the last occasion, we have not been able to publish the *Annual* as early as expected. The difficulties of war-time period, the emergence of fresh problems, and the desire to pass them under review, have been responsible for the delay in the publication. We trust, however, that such delay will be excused, particularly if the

reader takes into consideration the fact that all important developments have been dealt with in the *Annual* and constructive suggestions made in regard thereto.

It affords us very great pleasure to find that this *Annual* is continually growing in popularity and that there has been an increasing measure of appreciation of the usefulness of the publication, ever since it was first published in 1935. We are, doubtless, delighted at the very highly appreciative references made in the press regarding the usefulness of this *Annual* as the only book of reference containing an authoritative and comprehensive study of the problems of the sugar industry, discussing all important problems before the industry in an unbiassed, but critical manner, and giving a lead in making practical suggestions for reform in the industry, from year to year. The *Annual* has also been found to be of great use by the various Departments of the Government, Central as well as Provincial.

We will consider ourselves amply rewarded if this publication achieves in its focussing the attention of all interested in the industry, viz. the Government, the manufacturers, the cultivators, the consumers and the general public, to the problems before the industry and the remedies therefor, particularly in the post-war period which now seems to be coming near. The present opportunity for consolidating and rationalising the industry should not be lost. The importance of the industry in the national economy need hardly be stressed if it is remembered that it has stopped the drain of about Rs. 16 crores per annum, with the cessation of sugar imports, and is supporting no less than 20 million agriculturists whose interests are indissolubly linked up with the future of this industry.

For the sake of ready reference, we have given current important legislative measures pertaining to the industry and no less than 46 up-to-date statistical tables in the previous portion of this *Annual*, styled as "The Sugar Industry at a Glance" (i-lxviii).

Appendix A gives the text of a speech delivered by Mr. M. P. Gandhi before the Rotary Club of Ahmedabad in December, 1943.

Appendix I, gives a complete and up-to-date list of the Sugar Factories in India, showing the location, district, the nearest railway station and the nearest station, the daily cane crushing capacity, and names and addresses, including telegraphic addresses of the Managing Agents or Proprietors.

We take this opportunity of thanking the Director of the Imperial Institute of Sugar Technology, Cawnpore, for the help he has given

to us at all times. We are thankful to the Cane Commissioners of U. P. and Bihar and also to the secretaries of the Indian Sugar Syndicate, and the Indian Sugar Mills Association respectively, for the help they have rendered to us in making this publication authoritative and up-to-date.

We would be failing in our duty if we did not acknowledge the very valuable and willing assistance we have always been receiving from Mr. J. E. Pedley, M.C., C.I.E., I.C.S., Chairman, Sugar Commission, U. P. and Bihar, and Provincial Sugar Controller, who has furnished us with authoritative material on the industry, frequently at a short notice. It has helped in adding to the value of this *Annual*. We must also acknowledge the unfailing assistance received from the Imperial Council of Agricultural Research, the Senior Marketing Officer of the Government of India, the Directors of Industries, the Sugar Controller for India, and the Director-General of Commercial Intelligence and Statistics, Calcutta. We are also thankful to Mr. P. A. Seshan, M.A., Asst. Editor of the *Indian Finance*, for the assistance he has given in the publication of this *Annual*.

We regret to note that since 1940, the Government of India have decided to discontinue the publication of much statistical material in regard to imports, exports, etc. and to that extent we are handicapped. But this is inevitable. However, we have endeavoured our best to give such information as was possible from all available official and non-official sources.

We have maintained the same style and *format* in this *Annual* as were introduced by Mr. M. P. Gandhi, the Editor of this *Annual*, when the first *Annual* was published in 1935, as it helps the reader, and facilitates their looking for information at a particular place. We trust the readers will appreciate this.

We take this opportunity of thanking our various advertisers who have extended assistance to this publication and enabled us to bring out this publication in the same form, despite the greatly increased cost of paper and printing.

Jan Mansion,
Sir Pherozechah Mehta Road, }
Fort, Bombay.

M. P. GANDHI
for Gandhi & Co. (Publishers)

STATISTICAL TABLES

IN

“THE SUGAR INDUSTRY AT A GLANCE”

(1943)

(Revised up to 15th May, 1944)

TABLE No. 1

Number of Cane Factories working in India, including States, and Production of Sugar from Cane Factories, Gur Refineries, Khandsari, Net Import of Sugar in British India and Import in Kathiawar Ports during the last 12 years, and estimates for 1943-44 and 1944-45

Year (November- October)	No. of Cane Factories working in India	Cane Factory Production (November- October)	Sugar Refined from Gur (January- December)*	Khandsari (Con- jectural estimates) (Nov.-Oct.)	Total Production of Sugar in India (Nov.-Oct.)	Net Imports (Excluding Re- exports) of Sugar in British India (Nov.-Oct.)	Imports of Sugar in Kathiawar Ports (Nov.-Oct.)
		Tons	Tons	Tons	Tons	Tons	Tons
1931-32	32	158,781	69,539	250,000	478,120	438,797	95,678
1932-33	57	290,177	80,106	275,000	645,383	321,081	68,649
1933-34	112	453,965	61,094	200,000	715,059	233,366	87,094
1934-35	130	578,115	39,103	150,000	767,218	197,775	113,364
1935-36	137	932,100	50,067	125,000	1,107,167	86,962	45,218
1936-37†	137	1,111,400	19,500	100,000	1,230,900	11,160‡	12,870
1937-38	136	930,700	16,600	125,000	1,072,300	9,410	12,284
1938-39	139	650,800	14,200	100,000	765,000	254,400	76,819
1939-40	145	1,241,700	31,700	125,000	1,398,400	252,000§	85,580
1940-41	148	1,095,400	48,500	125,000	1,268,900	19,600	
1941-42	150	778,100	13,800	150,000	941,900	48,900	(Publica- tion of these sta- tistics dis- continued after 1940)
1942-43	150	1,070,700	10,000	214,000	1,294,700	563	
1943-44**	150	1,260,000	10,000	100,000	1,370,000	...	
1944-45**	152	1,100,000 (our own estimate)	10,000	100,000	1,210,000		

* Figures of production of sugar refined from *gur* for calendar year 1932 are added to figures for 1931-32, and so on.

** Our estimates for 1943-44, and 1944-45. Also *vide* Trade Journal, 6th April, 1944.

† Factories in Burma, and production of sugar in Burma, are excluded from 1936-37 season.

‡ Imports in Burma excluded from April 1937 onwards.

§ Import figures after 1939-40 are only available for April-March. Imports for 1939-40 (April-March) are shown against the column of 1939-40 (November-October). There is thus an overlapping in the import figures of 1938-39 (November-October) and 1939-40 (April-March) for a period of 7 months. This should be carefully noted while making use of these figures. *Vide* Indian Trade Journal, dated 7th May 1942 and 1st March 1943, page 409.

Figures of imports for 1940-41, 1941-42 and 1942-43 are taken from the issue of the *Indian Trade Journal* dated the 16th March, 1944, page 321.

TABLE No. 2

Comparative growth of the Sugar Industry in the various
Provinces since 1931-32, the pre-protection year

(No. of Cane-factories Working)

Province	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44
United Provinces ...	14	33	59	65	67	68	68	69	70	70	70	71	70
Bihar ...	12	19	33	34	35	33	33	32	32	32	31	31	31
Punjab, Sind & N.-W. F. P. ...	1	1	5	6	4	5	3	3	3	4	4	4	2
Madras ...	2	2	4	8	8	11	8	7	10	11	11	10	11
Bombay ...	2	1	4	5	6	6	7	7	7	8	10	9	10
Bengal ...	...	...	2	5	6	6	6	8	9	9	9	8	6
Orissa ...	...	...	...	...	...	...	2	2	2	2	2	2	2
Indian States ...	...	...	4	5	9	8	9	11	11	12	13	15	18
Total for India ...	32	57	112	130	137	137	136	139	145	148	150	150	150
Burma*	1	1	1	2	2	3	2	2	3	3	(a)	(a)	(a)

* Burma excluded from 1936-37 onwards from the total for India.

(a) No information available after occupation of Burma by Japan.

TABLE No. 3

Number of Sugar Factories in various Provinces, working in 1942-43,
Estimated quantity of cane crushed, sugar produced and Recovery
percentage obtained, etc.

(Official Estimates of the Director, Imperial Institute of Sugar Technology,
Cawnpore, published in the Indian Trade Journal, dated 23rd
September, 1943, and 6th April, 1944)

Province	No. of Mills Working	Cane Crushed Tons	Sugar Tons	Sugar-cane Recovery per cent	
				1942-43	1941-42
United Provinces ...	71	6,028,000	612,500	10.16	9.87
Bihar ...	31	2,171,900	237,400	10.93	10.35
Punjab, Sind & N.-W. F. P. ...	4	129,600	11,800	9.10	8.90
Madras ...	10	291,000	27,500	9.45	8.74
Bombay ...	9	732,000	77,900	10.64	9.87
Bengal ...	8	199,600	16,500	8.27	7.55
Orissa ...	2	21,100	2,100	9.95	9.43
Indian States ...	15	845,300	85,000	10.06	9.36
Total ...	150	10,418,500	1,070,700	10.28	9.69

TABLE No. 4
Sources of supply of Sugar required for consumption in India.*
(November-October) from 1932-33 to 1940-41

PARTICULARS	1932-33	1933-34	1934-35	1935-36	1936-37†	1937-38	1938-39	1939-40	1940-41
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Initial Stock:							(Our Est.)	(Our Est.)	
(1) In Ports	19,176	9,057	21,630	11,189	23,684	22,000	20,000	51,000	12,000
(2) In Principal Land Markets	...	...	8,366	7,994	5,330	15,000	15,000	17,000	24,000
(3) With Factories	...	...	...	4,000	130,309	170,000	67,000	23,000	389,000
Production of Sugar:									
(1) Direct from Cane	290,177	453,955	578,115	932,100	1,111,400	930,700	650,800	1,241,700	1,095,000
(2) Refined from Gur	77,995	64,890	43,500	47,876	25,600	17,200	14,700	14,200	45,000
(3) Khandasaries	275,030	200,000	150,000	125,000	100,000	125,000	107,000	125,000	150,000
Imports of Sugar by Sea	324,400	245,300	200,100	93,800	16,001	8,986	257,147	36,000	28,000
Imports of Sugar by Sea into Kathiawar Ports	64,000	87,094	113,400	45,200	12,870	12,238	77,000	28,000	...
Total Supply	1,050,748	1,060,306	1,115,111	1,263,159	1,424,865	1,301,124	1,201,647	1,535,900	...
Re-Export of Sugar by Sea	587	11,200	2,157	6,205	5,553	131	4,169	...	...
Export of Sugar by Sea	3,356	434	357	449	10,640	8,668	2,092	...	...
Export of Sugar by Sea	31,957	30,607	29,939	27,667	35,064	31,100	31,000	70,000	...
Closing Stock:									
(1) In Ports	9,057	21,630	11,189	23,684	22,000	20,000	51,000	12,800	31,000
(2) In Principal Inland Markets	...	...	7,994	5,330	15,000	15,000	17,000	24,000	10,000
(3) With Factories	...	...	4,000	130,000	170,000	67,000	23,000	400,000	352,000
Total to be deducted	44,957	64,571	51,636	193,000	258,237	141,899	128,261	506,800	...
Quantity consumed to the nearest thousand	1,006,000	996,000	1,059,000	1,074,000	1,167,000	1,159,000	1,073,000	1,029,100	1,350,000
...	...	...	...	...	...	...	(Our Est.)	(Our Est.)	(Our Est.)

* *Vide* The Review of the Sugar Trade of India, for the year ending 31st October 1939-40, published with the Indian Trade Journal dated 7th May 1942. For statistics of production, imports, etc. for 1941-42, 1942-43 and 1943-44 see previous tables.

† Burma has been excluded since 1936-37.

TABLE No. 5

Total, and per capita consumption of Sugar and Gur in India*

Year (November- October)	Consumption of Sugar in tons	Official Estimate	Consumption of Gur in tons	Per Capita Consumption lbs.		
				Sugar	Gur	Total of Sugar & Gur
				lbs. per head	lbs. per head	lbs. per head
1931-32	982,000	„	2,758,000	6.2	17.2	23.4
1932-33	1,006,000	„	3,240,000	6.3	20.2	26.5
1933-34	996,000	„	3,486,000	6.1	21.5	27.6
1934-35	1,059,000	„	3,701,000	6.5	22.6	29.1
1935-36	1,074,000	„	4,101,000	6.5	24.8	31.3
1936-37	1,167,000	„	4,268,000	7.3	26.7	34.0
1937-38	1,159,000	„	3,364,000	7.2	20.9	28.1
1938-39	1,073,000	„	2,131,000	6.6	13.1	19.7
1939-40	1,019,100	„	2,441,000	6.4	18.0	24.4
1940-41 ^{†*}	1,100,000	(Our Est.)	3,410,000	6.7	20.6	27.3
1941-42 ^{†*}	1,050,000	„	2,829,000	6.0	18.5	24.5
1942-43 ^{‡*}	966,000	„	3,567,000	5.9	20.1	26.0

* *Vide* the Review of the Sugar Trade of India, for the year ended 31st October 1940, published with the Indian Trade Journal, dated 7th May 1942.

The total value of the sugar, including *gur*, produced in 1938-39 may be estimated at Rs. 800,000,000, and in 1939-40 at about Rs. 1,000,000,000.

** Our estimates.

TABLE No. 6

Per capita consumption of Sugar in various countries*

United Kingdom ...	...	...	106	lbs.	per head
U. S. A. ...	...	...	97	„	„
Brazil ...	...	...	34	„	„
France ...	...	...	52	„	„
Australia ...	...	...	116	„	„
Germany ...	...	...	52	„	„
Cuba ...	...	...	88	„	„
Java ...	...	...	11	„	„
Japan ...	...	...	33	„	„
Union of South Africa ...	...	...	47	„	„
Netherland ...	...	...	64	„	„
India ...	...	...	27	(including 20 lbs. Gur)	

* *Vide* Report on "Agricultural Marketing in India", 1943, p. 130, published by the Government of India.

TABLE No. 7

Yearly world production, consumption and the carry-over of stocks of Sugar for the last 10 years in thousand tons (Raw Sugar Value)*

(In Thousands of Long Tons)

Crop year (Sept. 1st to Aug. 31st)	Opening Stocks (Sept. 1st)	Production	Consumption	Closing Stocks (Aug. 31st)	Percentage relation of stocks to Consumption
1931-32	12,362	26,431	26,724	12,069	45.2
1932-33	12,069	24,692	26,193	10,568	40.3
1933-34	10,568	25,709	26,287	9,990	38.0
1934-35	9,990	26,191	27,188	8,993	33.1
1935-36	8,993	28,846	29,231	8,608	29.5
1936-37	8,608	30,818	30,549	8,377	29.1
1937-38	8,877	30,967	29,617	10,197	34.4
1938-39	10,197	29,478	29,406	10,269	34.9
1939-40	10,269	30,753	26,551	11,471	38.8
1940-41	...	30,498	...	...	...
1941-42	...	28,553	...	...	...

* Figures are in long tons (Long ton = 2,240 lbs.), (Metric ton = 2,205 lbs.), and (Short ton = 2,000 lbs.).

A glance at the last Table in the 1940 Annual will show that India leads as the largest sugar producing country in the world, since 1931.

Figures for 1940-41 and 1941-42 based on returns of Willet & Gray, reproduced in *Indian Trade Journal* of 16th March 1944, page 322

TABLE No. 8

Average and maximum percentage of recovery of Sugar in factories in India and Java since 1931-32*

Year	India Average	U. P. Average	Bihar Average	Bombay Average	Java Average	India Maximum
1931-32	8.89	8.59	9.06	...	10.92	10
1932-33	8.66	8.55	8.60	10.00	11.56	10
1933-34	8.80	9.08	8.32	10.00	12.81	10
1934-35	8.66	8.56	8.79	10.37	12.55	11.10
1935-36	9.29	9.60	8.93	10.47	13.23	11.34
1936-37	9.50	9.65	9.20	10.68	12.77	11.43
1937-38	9.38	9.18	9.58	10.97	11.87	11.63
1938-39	9.29	9.14	9.00	11.29	11.77	12.25
1939-40	9.45	9.37	9.29	10.97	12.23	12.31
1940-41	9.70	9.87	9.86	9.94	...	11.15
1941-42	9.69	9.87	10.35	9.87	...	12.45
1942-43	10.28	10.16	10.93	10.64	...	13.35

* Vide *Indian Trade Journal*, Calcutta, 23rd September 1943.

TABLE No. 9

Capacity of factories and duration of crushing season in India*

	Tons											
Average Cane-crushing capacity of Factory (calculated on the basis of tons of cane crushed per day of actual working) in India	{	517	1934-35									
		568	1935-36									
		630	1936-37									
		660	1937-38									
		630	1938-39									
		710	1939-40									
		690	1940-41									
		640	1941-42									
	{	690	1942-43									
Maximum Cane-crushing capacity of Facto- ries per day in India 	{	2,012	1934-35									
		1,807	1935-36									
		1,960	1936-37									
		2,000	1937-38									
		1,850	1938-39									
		1,960	1939-40									
		1,980	1940-41									
		1,800	1941-42									
		1,920	1942-43									
Duration of Cane-crushing Season (October-May)	1933-34 No. of days	1934-35 No. of days	1935-36 No. of days	1936-37 No. of days	1937-38 No. of days	1938-39 No. of days	1939-40 No. of days	1940-41 No. of days	1941-42 No. of days	1942-43 No. of days		
Mean duration of Cane-crushing season in All-India ...	106	104	126	138	112	83	129	113	85	101		
Maximum duration of Cane-crushing season in All-India ...	208	172	179	203	181	184	203	264	313	278		
Mean duration of Cane-crushing season in U. P. ...	112	107	134	140	124	77	133	100	78	112		
Mean duration of Cane-crushing season in Bihar ...	105	109	4	150	99	79	136	100	54	96		
Mean duration of Cane-crushing season in "All other Pro- vinces" ...	84	90	112	138	103	97	119	144	117	89		

* Vide Indian Trade Journal, Calcutta, dated 23rd September 1943 and previous issues.

TABLE No. 10

Acreage under Sugar-cane, under improved varieties, production of cane per acre, gross production of Gur, and calculated production of Cane-crop* from 1931-32 to 1943-44

Year	Total acreage under sugar-cane in thousand acres	Acreage under improved varieties in thousand acres	Average cane production per acre (in tons)	Gross production expressed as gur (in thousand tons)	Calculated production of sugar-cane (10-11 factors) (in thousand tons)
1930-31	2,905	817	12.3	3,359	35,780
1931-32	3,076	1,170	14.1	4,116	43,316
1932-33	3,425	1,845	14.9	4,859	51,129
1933-34	3,422	2,295	15.3	5,055	52,455
1934-35	3,602	2,433	15.1	5,292	51,346
1935-36	4,154	3,056	15.3	6,102	61,202
1936-37	4,582	3,452	15.6	6,932	67,322
1937-38	3,869	2,968	15.5	5,579	55,637
1938-39	3,130	2,673	15.0	3,572	35,851
1939-40	3,640	2,893	15.0	4,748	47,632
1940-41	4,598	3,480	15.0	5,794	59,090
1941-42	3,515	...	15.0	4,371	46,030
1942-43	3,600	...	15.0	5,076	...
1943-44	4,113	...	...	5,696	...

TABLE No. 11

Percentage of Cane used under different heads during the years 1932-33 to 1942-43 (November-October)**

	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38 (Our Est.)	1938-39 (Our Est.)	1939-40 (Our Est.)	1940-41 (Our Est.)	1941-42 (Our Est.)	1942-43 (Our Est.)
Cane used in Factories	6.5	9.8	12.3	16.0	17.6	17.8	16.2	27.7	19.1	21.2	25.0
Cane equivalent to gur used in refineries	3.0	2.0	1.2	1.4	0.5	0.5	0.5	0.9	1.4	1.4	1.0
Cane used for gur manufacture	64.7	65.5	66.0	63.8	64.9	62.0	64.0	51.4	57.7	53.4	50.0
Cane used for other purposes, including <i>Khandsari</i> , Chewing, setts for planting etc.	25.8	22.7	20.5	18.8	16.9	19.7	19.3	20.0	21.8	24.0	24.0
Total percentage	100	100	100	100	100	100	100	100	100	100	100

* Vide Indian Trade Journal, 18th September 1941. The yield of gur per acre has increased from .80 tons in 1901-02 to 1.47 tons per acre, due to improved varieties of cane.

** Vide Reply in the Council of State to Question No. 39, dated 11th November 1941.

TABLE No. 12

Percentage of Cane crushed in factories to the total Cane-crop in various Provinces*

Season	U. P.*	Bihar*	Bombay	Bengal	Madras	India
1934-35 ...	13.6	30.9	8.0	2.7	5.0	12.3
1935-36 ...	17.1	40.4	11.7	4.8	5.4	16.0
1936-37 ...	17.1	49.3	13.0	5.2	6.0	17.6
1937-38 (Our Est.)...	18.6	62.3	14.0	...	...	17.8
1938-39 ...	14.5	44.5	...	...	...	19.5
1939-40 ...	25.5	48.4	...	...	...	27.7
1940-41 ...	13.9	29.3	...	...	...	19.1
1941-42 ...	14.6	...	...	...	...	21.2
1942-43 ...	21.9	...	...	...	...	25.0

* Figures based on Cane Development Department (U.P.) statement showing disposal of cane crop in the U.P. during 1934 to 1942 and on letter from Cane Commissioner, Bihar to Chairman, Sugar Commission, U.P. and Behar, No. 251/T., dated 2nd February 1943 and 10783/Com., dated 9th February 1944. The letter of 2nd February 1943, states there is a grave doubt regarding correctness of the total cane crop tonnage and this would vitiate the percentage figure.

TABLE No. 13

Cost of production of Cane per maund

- Definite figures are not available. Cost of production varies from Province to Province from annas 0-3-0 to annas 0-7-0 per maund. (*Vide* 1939 Annual.)
- Enquiry undertaken by the Imperial Council of Agricultural Research in 1934, is concluded. Reports of cost in various Provinces were published in 1938 and 1939, and also referred to in Tariff Board's Report of 1937.
- Cost considerably increased since 1942, due to inflation.

TABLE No. 14

Estimate of total amount of money paid by Sugar factories to Cane-cultivators and workers, since 1931-32 to 1943-44

Season	Estimated average price per maund of cane in U. P. & Bihar	Estimated amount paid for cane by factories to Cultivators (1)	No. of unskilled workers employed (2)	Estimated amount of money paid to unskilled workers (3)
	Rs. a. p.	Rs.	No.	Rs.
1931-32 ...	0 5 10	1,77,51,000	16,640	998,000
1932-33 ...	0 5 6	3,14,39,000	29,640	1,778,000
1933-34 ...	0 5 6	4,83,98,000	67,200	4,032,000
1934-35 ...	0 5 3	5,97,66,000	78,200	4,680,000
1935-36 ...	0 5 3	8,81,03,000	82,200	4,932,000
1936-37 ...	0 4 5	8,92,19,504	100,000	6,000,000
1937-38 ...	0 5 1	8,57,53,775	100,000	6,000,000
1938-39 ...	0 6 10	8,13,00,988	100,000	6,000,000
1939-40 ...	0 8 5	18,81,09,460	100,000	7,000,000
1940-41 ...	0 4 8	8,96,40,583	100,000	5,650,000
1941-42 ...	0 7 0	6,15,00,000	100,000	4,000,000
1942-43 ...	0 10 0	13,00,00,000	100,000	5,000,000
1943-44 ...	0 12 0	18,00,00,000	100,000	5,500,000

- (1) Based on statistics received from a large number of factories in U.P. and Bihar.
- (2) Based on an assumption of an average factory employing about 600 workers.
- (3) Based on an estimate of payment of 0-8-0 per day, (upto 1941-42) and on the average working period of the season. After 1941-42, the estimate is on a 25 per cent higher basis.

TABLE Nos. 15 & 16

Minimum Cane-price schedules in U.P. and Bihar in 1934-35, 1935-36, 1937-38, 1938-39, 1939-40, 1940-41, 1941-42, 1942-43 and 1943-44

The minimum price for the purchase of cane was fixed by legislation in U.P. and Bihar for the first time during 1934-35, with a view to secure a fair price to the growers under Sugar-cane Rules framed under the Sugar-cane Act, 1934.* The following schedules which were adopted by the respective Provinces for fixing the minimum price of cane for each fortnight according to variations in the price of sugar, during the season 1934-35, continued to operate in 1935-36, and in 1936-37 provision was also made for minimum price of cane corresponding to an average price of sugar between Rs. 6 and Rs. 6-8 in view of the fall in price of sugar during 1936-37.

Fortnightly varying sliding scale of Cane-prices in operation from 1934-35 up to 1936-37

BIHAR				THE UNITED PROVINCES			
Average price of sugar		Corresponding minimum price of Sugarcane intended for use in		Average price of sugar		Corresponding minimum price of Sugarcane intended for use in	
		Open Pan Factories	Vacuum Pan Factories			Open Pan Factories	Vacuum Pan Factories
Rs. a.	Rs. a.	As. p.	As. p.	Rs. a.	Rs. a.	As. p.	As. p.
Above	To			Above	To		
6 0	6 8	2 3	4 0	6 0	6 8	2 3	4 0
6 8	7 0	2 6	4 3	6 8	7 0	2 10	4 3
7 0	7 8	2 8	4 6	7 0	7 8	3 0	4 6
7 8	8 0	2 10	4 9	7 8	8 0	3 2	4 9
8 0	8 12	3 0	5 0	8 0	9 0	3 4	5 0
8 12	9 4	3 2	5 3	9 0	9 8	3 6	5 3
9 4	9 12	3 4	5 6	9 8	10 0	3 8	5 6
9 12	10 4	3 6	5 9				

* Act repealed in U.P. and Bihar in 1938. U.P. and Bihar Sugar Factories Control Act, and Rules introduced in 1938. These have been subsequently amended.

Irreducible Minimum Price for the entire season in 1937-38

During the 1937-38 season the minimum price for cane was not fixed every fortnight varying with the price of sugar. The minimum cane price schedule which was in force till 1936-37 was abolished in the beginning of 1937-38. In Bihar and U.P. the irreducible minimum price of sugar-cane was fixed for the entire season of 1937-38 at annas 0-5-3 per maund for gate-cane and annas 0-5-0 per maund for rail-borne cane.

Minimum Cane-price in U.P. and Bihar in the 1938-39 season

In November 1938 the Governments of U.P. and Bihar issued Notifications (No. 8683-A/RIIA, dated 17th November 1938, and No. 2017-D, dated 16th November 1938) respectively, announcing the minimum cane price for Vacuum Pan factories during the whole crushing season 1938-39. The following were the cane prices thus fixed :—

per std. md. of 82-2/7 lbs.
Rs. A. P.

- | | | |
|--|-------|-------|
| 1. Cane purchased at the factory (or within a radius of 5 miles therefrom in Bihar only) | .. .. | 0 6 9 |
| 2. Cane purchased at outstations and transported by railway or other means at the cost of the factory exceeding 5 miles but not exceeding 28 miles | .. .. | 0 6 6 |
| 3. Cane purchased at outstations and transported by railway or other means at the cost of the factory for distances exceeding 28 miles | .. .. | 0 6 3 |

On the 13th January 1939, Government of U.P. increased the minimum price of sugar-cane with effect from January 15, 1939, upto 0-7-9, and with effect from 3rd March upto 0-8-9, due to a rise in the price of sugar. The Bihar Government increased cane prices from February 1939, upto 0-7-0 per maund.

Minimum price fixed in Madras in one area

During 1938-39, in the Province of Madras in the Hospet area the Government fixed a minimum price of cane at about Rs. 9-8 per ton, roughly equivalent to 0-5-7 per maund. During 1939-40 the minimum price in the Hospet area was fixed at Rs. 12 per ton for all varieties of cane. In Mysore, the minimum price was fixed, varying with the price of sugar in 1939-40 as in the previous years.

Minimum price fixed in Mysore State

The Mysore Government fixed a minimum price of Rs. 12 per ton on all cane supplied from February 1940 to the end of May 1940. From August 1940 the minimum price was reduced to Rs. 11 per ton and further reduced to Rs. 10 per ton from October 1940.

Cess on Cane at 0-0-6 per maund and revenue therefrom

The Government of U.P. and Bihar levied a cess on all sugar-cane purchased by factories, with effect from the 1938-39 season, commencing from 16th November 1938. The revenue derived from the cane cess in 1938-39 in the U.P. was Rs. 27,81,280 and in Bihar Rs. 14,34,000. In 1939-40 the revenue from the cane cess in U.P. amounted to Rs 40,04,350 and in Bihar to Rs. 17,86,000. The revenue from this source has not been funded or assigned either in U.P. or Bihar. It is understood, however, that large sums are spent annually on sugar-cane and its development and also on roads, particularly in the vicinity of factories.

Minimum price of Cane recommended by Sub-Committee in U.P. and Bihar in 1939-40

At a meeting of the U.P. and Bihar Sugar Control Board, held at Patna on the 29th April 1939, a Sub-Committee was appointed to report *inter alia* on the scheme of minimum price of sugar-cane, and to consider the feasibility of a sliding scale of cane and sugar prices. This Sub-Committee consisting of two representatives of the Government, two representatives of the manufacturing interests, and two representatives of cane-cultivating interests met at Nainital on 18th June 1939, and recommended to the Sugar Control Board for adoption the following sliding scale of minimum price of sugar-cane linked with the price of sugar:—

Price of sugar per maund				Price of cane* per md.			
Rs. A. P.				Rs. A. P.			
7	12	0	and under	..	..	0	5 0
7	12	0	to Rs.	..	..	0	5 3
8	0	0	" "	..	..	0	5 6
8	4	0	" "	..	..	0	5 9
8	8	0	" "	..	..	0	6 0
9	0	0	" "	..	..	0	6 6
9	4	0	" "	..	..	0	6 9
9	8	0	" "	..	..	0	7 0
9	12	0	" "	..	..	0	7 3
10	0	0	" "	..	..	0	7 6
10	4	0	" "	..	..	0	7 9
10	8	0	" "	..	..	0	8 0
10	12	0	" "	..	..	0	8 3
10	15	0	" "	..	..	0	8 6
11	2	0	" "	..	..	0	8 9
11	5	0	" "	..	..	0	9 0
11	8	0	" "	..	..	0	9 3
11	11	0	" "	..	..	0	9 6
11	14	0	" "	..	..	0	9 9

The basis of calculation of sugar prices will be the same as when the previous sliding scale was in use (i.e. in 1936-37).

* The price refers to gate-cane.

The scale was unanimously accepted on the assumption of the existing rates of sugar excise, viz. Rs. 2 per cwt., Cess, viz. 0-0-6 per maund of cane, and co-operative commission (for supply of cane to factories varying from 0-0-1 to 0-0-3 per maund) being maintained.

As a result of the unanimous recommendation of such a sliding scale, the Government of U.P. and Bihar decided to abandon their previous practice of fixation of a non-varying minimum price of cane for the entire season, and to re-introduce a system of fixing the minimum price of cane, every fortnight, varying with the price of sugar according to the above sliding scale or such modifications thereof as they wished to make, with effect from the commencement of the cane-crushing season in November 1939.

As has been stated above, during the season 1934-35, 1935-36 and 1936-37, cane prices were fixed fortnightly in U.P. and Bihar according to the then accepted schedule, which was more favourable to the manufacturers than the schedule in force in 1939-40.

Minimum Cane-price sliding scale adopted by Bihar and U.P. in 1939-40

On 27th October 1939, the U.P. Government issued the following Press Note in connection with the fixation of minimum price of cane :—

The Sugar Control Board appointed a Sub-Committee to examine the question of suitable minimum sugar-cane prices payable by vacuum pan factories, and this Sub-Committee, which included representatives both of sugar manufacturers and cane growers, unanimously recommended that the minimum price for sugar-cane should be fixed every fortnight in accordance with a sliding scale linking the cane price to the average price of sugar calculated as formerly on the basis of the ten highest price quotations at Cawnpore* for first grade sugar manufactured in the United Provinces for delivery by factories on an F.O.R. basis. The Government have accepted this recommendation, but have on consideration of all the relevant circumstances slightly modified the scale of sugar-cane prices recommended by the Sub-Committee. The scale decided upon by the Government was as follows :—

Rs. A. P.			Per maund of sugar			Per maund of cane		
			Rs. A. P.			Rs. A. P.		
Under 7	10	0				..	..	0 5 0
Under 7	10	0 to under 7	14	0	..	..	..	0 5 3
	7	14 0 „ „		8 2 0	..	..	..	0 5 6
	8	2 0 „ „		8 6 0	..	..	..	0 5 9
	8	6 0 „ „		8 10 0	..	..	..	0 6 0
	8	10 0 „ „		8 14 0	..	..	..	0 6 3
	8	14 0 „ „		9 2 0	..	..	..	0 6 6

* This was amended on 7th December 1939, and instead of ten highest prices, "the average of all available market quotations of first grade sugar" was taken.

Rs. A. P.	Per maund of cane			Per maund of sugar	
	Rs.	A. P.		Rs.	A. P.
9 2 0 „ „	9	6 0	..	..	0 6 9
9 6 0 „ „	9	10 0	..	..	0 7 0
9 10 0 „ „	9	14 0	..	..	0 7 3
9 14 0 „ „	10	2 0	..	..	0 7 6
10 2 0 „ „	10	5 0	..	..	0 7 9
10 5 0 „ „	10	8 0	..	..	0 8 0
10 8 0 „ „	10	11 0	..	..	0 8 3
10 11 0 „ „	10	14 0	..	..	0 8 6
10 14 0 „ „	11	1 0	..	..	0 8 9
11 1 0 „ „	11	4 0	..	..	0 9 0
11 4 0 „ „	11	7 0	..	..	0 9 3
11 7 0 „ „	11	10 0	..	..	0 9 6
11 10 0 „ „	11	13 0	..	..	0 9 9
11 13 0 „ „	12	0 0	..	..	0 10 0

On the 7th December 1939 the U.P. and Bihar Governments decided to make an allowance of 0-4-6 per maund of sugar on account of the rise in the price of raw materials as a result of the war and to deduct this amount from the average sugar quotations before correlating it to the price of the cane.

After the increase in the excise duty on sugar from Rs. 2 to Rs. 3 per cwt. with effect from the 1st March 1940, the U.P. and Bihar Governments decided to reduce the minimum price of cane by 9 pies per maund (working out the cane prices in accordance with the schedule which remained unaltered).

From 11th April 1940, the practice of fixing minimum price of cane with reference to the sliding scale schedule given above was abandoned and the price of cane was fixed at a flat rate with a provision for payment of a higher price to the cultivators if the factories were able to sell sugar at a higher rate, thus introducing virtually the system of deferred payment for cane.

Opening minimum Cane-prices in 1939-40

The minimum price for sugar-cane for the period from November 1 to 15, 1939, was fixed as follows in the U.P. :—

	Per. st. md.	
	Rs. A. P.	
For purchases at the factory ..	..	0 8 9
For purchases at railway stations within 28 miles ..	0	8 6
For purchases at railway stations beyond 28 miles ..	0	8 3

The minimum cane prices in Bihar from 1st November to 15th November 1939, were as follows :—

*Price per Standard Maund of
82-2/7 lbs. avoirdupois*

- (i) Cane purchased at the factory or within a radius of 5 miles therefrom Eight annas and nine pies.
- (ii) Cane purchased at outstations and transported by railway or other means at the cost of the factory for distances exceeding 5 miles but not exceeding 28 miles Eight annas and six pies.
- (iii) Cane purchased at outstations and transported by railway or other means at the cost of the factory for distances exceeding 28 miles Eight annas and three pies.

The above prices were exclusive of the cane cess of 0-0-6 per maund, both in U.P. and Bihar.

Minimum Sugar-cane prices in 1939-40 season

For ready reference we are giving a table showing the cane prices per maund in U.P. and Bihar for the entire 1939-40 season at a glance :

TABLE No. 16
Cane prices in 1939-40 at a glance

Date	Cane Prices		Deduction Granted	
	Rs.	a. p.	Rs.	a. p.
November 1 to December 15, 1939	...	0 8 9		...
December 16 to December 31, 1939	...	0 9 9	0 0	6*
January 1 to January 15, 1940	...	0 10 9	0 0	9*
January 16 to January 31	...	0 10 3	{ 0 0	9*
			{ 0 0	6(1)
			{ 0 0	9*
February 1 to February 15	...	0 10 0	{ 0 0	6(1)
			{ 0 1	0(2)
February 16 to February 29	...	0 9 9	As in the first fortnight of February.	
March 1 to March 2	...	0 9 9		
March 3 to March 15	...	0 9 0		
March 16 to March 31	...	0 9 0	{ 0 0	6*
			{ 0 0	6(1)
			{ 0 0	9(2)
April 1 to April 10	...	0 8 9	As in the previous fortnight.	
April 11 to April 30	...	0 6 3		
May 1 onwards	...	0 5 6	{ 0 0	9(1)
			{ 0 0	9(2)

* For the districts of Bahraich, Gonda, Fyzabad, Gorakhpur, Basti, Azamgarh and Balia. Relief is for all cane.

(1) Relief for "Dest" cane in Basti and Gonda districts between 26-1-40 to 31-5-40 and in Gorakhpur district between 3-2-40 to 31-5-40.

(2) Relief in Gonda district only.

Date		Cane Prices Rs. a. p.	Deduction Granted*	
			Rs. a. p.	
November 1 to December 15, 1939	...	0 8 9	0 0	...
December 16 to December 31, 1939	...	0 9 9	0 0	6*
January 1 to January 15, 1940	...	0 10 6	0 0	6*
January 16 to January 31	...	0 10 3	{ 0 0 6(a) and	
			{ 0 1 6(b)	
February 1 to February 15	...	0 10 0	{ 0 0 6(a) and	
			{ 0 1 6(b)	
February 16 to February 29	...	0 9 9	0 1	6(b)
March 1 to March 2	...	0 9 9	..	
March 3 to March 15	...	0 9 0	...	
March 16 to March 31	...	0 9 0	...	
April 1 to April 10	...	0 8 9	...	
April 11 to April 30	...	0 6 0	...	
May 1 onwards	...	0 5 6	...	

The above prices were exclusive of the cess on cane of 0-0-6 per md levied from the commencement of the season in 1939-40 up to 10th April 1940 after which the Governments decided to forego the cess.

* For the districts of Champaran, Saran, Durbhanga and Muzaffarpur. From 17-12-39 to 11-1-40.

(a) For the Sadar Sub-division of the district of Saran and the districts of Darbhanga and Muzaffarpur from 12-1-40 to 31-1-40.

(b) For the Bettiah Sub-division of the district of Champaran and Gopalganj Sub-division of the district of Champaran and Gopalganj Sub-division of the district of Saran from 12-1-40 to 29-2-40

N.B.—Relief is for Co 210 and Co 213 cane.

Non-varying Cane-price in the 1940-41 season in U.P. and Bihar

The Governments of U.P. and Bihar decided to fix a non-varying minimum price for the purchase of cane for the entire season, thus abandoning the previous practice of varying the minimum prices of cane according to the sliding scale in use during the season 1939-40. The Government of Bihar issued a notification on the 4th December fixing the minimum price of cane during the crushing season 1940-41 at 0-4-6 per maund. The Government of U.P. issued a notification on 6th December fixing the minimum price of cane at 0-4-6 per maund with effect from 15th December 1940. On the 23rd December the Government of Bihar issued a notification fixing the minimum price of cane at 0-4-3 per maund with effect from the 23rd December 1940 for the crushing season 1940-41, while the Government of U.P. issued a notification on the same date reducing the minimum price of cane to 0-4-3 per maund for factories situated in Gorakhpore, Gonda, Bahraich, Basti and Fyzabad districts. The minimum price of cane in the other Districts was kept at 0-4-6 per maund.

Difference in prices between gate-cane and rail-cane abolished

It must be noted that the difference prevailing between gate-cane and rail-cane hitherto has been abolished and the same price is fixed both for gate-cane and rail-cane.

Cane cess of 0-0-6 and additional cess of 0-0-6 per maund on cane and revenue therefrom in 1940-41

For the 1940-41 season the Government of Bihar issued a notification on the 25th November fixing the cess of 9 pies per maund on all cane purchased by factories in Bihar (out of this 9 pies, 0-0-3 represented the usual cane cess and 0-0-6 was for the repayment of the excise loan given to factories in 1939-40). The Government of Bihar issued a further notification on the 23rd December increasing the cess from 9 pies per maund to 12 pies per maund (0-0-6 per maund being the cess on cane and 0-0-6 per maund being the repayment of the excise loan) and reduced the cane prices as stated above by 3 pies per maund. The Government of U.P. issued a notification on the 6th December announcing the levy of a cess on cane at the rate of 3 pies per maund together with an additional cess of 6 pies per maund being the repayment of the excise loan given last season to the factories and they issued a further notification on the 23rd December announcing the cane cess at 12 pies per maund, 6 pies being the cess on cane and 6 pies being the additional cess for cane purchased by all factories in the Province. The Government of U.P. reduced the cane prices in the few districts stated above to 0-4-3 per maund with effect from 24th December 1940. The minimum price of cane in other districts in U.P. was fixed at 0-4-6 per maund.

During 1940-41 and 1941-42 seasons, the revenue from the cane cess (for development) in Bihar was Rs. 10,15,000 and Rs. 4,82,000, and in the U.P. Rs. 21,45,000 and Rs. 16,08,000.

The reason of the U.P. Government for reducing the price of cane in the district mentioned above was that there was likely to be a considerable amount of cane left standing in those areas when the quotas of canes allotted to factories had been crushed. The price of cane in those areas was therefore reduced and the cane cess raised by 3 pies so that the proceeds of this extra cess of 3 pies might form the nucleus of a fund to which the Governments would respectively contribute and from which compensation would be paid to tenants whose cane was left standing at the end of the season.

A reduction of 0-0-6 per maund of cane was given in March 1941 to some factories in Bihar which drew their cane from areas where there was surplus cane.

Non-varying minimum price for cane in U.P. and Bihar again in 1941-42

After the successful practice adopted in 1940-41, it was found advisable by the Governments of U.P. and Bihar to fix again a non-varying minimum price for cane, though at a slightly higher level, for the entire 1941-42 season. It was thought desirable to offer a greater return to the ryot in view of the smallness of the crop for the season. Thus the minimum price was fixed at five annas per maund against $4\frac{1}{2}$ annas per maund. The relative selling price for standard sugar was fixed at Rs. 9-10-0 per maund.

In February 1943, the Governments of U.P. and Bihar issued a notification enforcing deferred payment according to the rates given in the following schedule :—

SCHEDULE

When the average of the selling price ex-factory of standard sugar and the selling prices ex-factory of other grades of sugar reduced to a common denominator of the average selling price of standard sugar			Amount of additional payment to be made		
Exceeds			But does not exceed		
Rs.	a.	p.	Rs.	a.	p.
9	10	0	10	6	0
10	6	0	..		
			One pie for each amount of one anna per maund by which the average selling price of sugar rises.		
			One pie for each amount of one anna nine pies per maund by which the average selling price of sugar rises.		

Later in the season, i.e. in April 1942, the Sugar Control Order, 1942, was published whereby control over the whole of the sugar industry in India was introduced by the Government of India, and the prices of all grades of sugar were finally fixed by the Government of India in the Commerce Department in April 1942. By that time only a comparatively small portion of the sugar produced in the 1941-42 season had been sold, and the average price in terms of standard sugar C26 of the amount of sugar upto that date was calculated. After the price of sugar had been fixed by the Central Government, the average price of standard sugar C26 was automatically fixed, and according to the schedule above mentioned, deferred payment on cane for the season was finally calculated at 0-2-0 above the minimum price, that is to say, the price paid for cane crushed in the season 1941-42 was 0-7-0 per maund, exclusive of cesses, in the U.P. and Bihar.

Non-varying minimum price for Cane in U.P. and Bihar in 1942-43

In view of the poor cane-crop and the high prices prevailing for sugar, the U.P. and Bihar Governments fixed the minimum price of sugar in the beginning of the season 1942-43 at 0-8-0 per maund. But in view of the difficulties experienced by the factories in getting adequate supplies of cane even at that price, and the increase in the ex-factory prices of all grades of sugar by Rs. 2-5-0 per maund, with effect from 1st January 1943, by the Government of India under the Sugar Control Order, 1942, the U.P. and Bihar Governments also increased the price of cane from 0-8-0 to 0-10-0 per maund, with effect from 30th December 1942.

Non-varying price for cane in U.P. and Bihar in 1943-44

Punjab and Bengal Fix Higher Prices

Early in November, 1943, the Government announced an increase in the minimum price of cane in U.P. and Bihar from As. 10 a maund which was the price in the 1942-43 season, to As. 12 a maund of cane,

At the same time, the factories were directed not to pay the full price to the cane-grower all at once. One-sixth of the price, i.e. two annas a maund, was to be paid in Defence Savings Bonds or Certificates, which were to be cashed one year after the war was over. The Government expected that on the basis of production of 9 lakhs tons of sugar in U.P. and Bihar, nearly Rs. 3 crores would thus be withheld from circulation and be of assistance in their anti-inflationary tendencies. The Punjab Government, finding that factories were unable to get cane at Rs. 0-12-0, fixed Rs. 0-14-6 per maund, and the Bengal Government fixed Re. 1 per maund.

Special Reduction in Cane Price towards the fag end of the Season, 1943-44

With effect from 15th May, 1944, the U.P. Government announced a reduction of Rs. 0-2-0 in the price of cane, i.e. to Rs. 0-10-0 per maund, in order to induce factories to continue crushing and produce maximum quantities of sugar. The full amount was to be paid straight to cane-growers.

Discontinuance of Additional Special Cess of Rs. 0-0-6 per maund of Cane in U.P. and Bihar in 1943-44

Additional Cess of 0-0-6 per maund of cane imposed in 1940-41 to repay the deferred excise duty, for which an amount of Rs. 1,50 crores was borrowed from the Government of India, with a view to enable the Governments of U.P. and Bihar to give a temporary rebate of one rupee per maund of the excise duty, was discontinued from 1943-44 season, as the amount was fully collected and as the sum, along with the interest, was repaid to Government of India.

Raising of Ordinary Cess on Cane from 0-0-3 to 0-1-0 per maund in U.P. and Bihar in 1943-44

The rate of ordinary Provincial cess on cane which was 0-0-3 per maund was, however, raised to 0-1-0 per maund with effect from 1943-44, in U.P. and Bihar, in spite of the protests of the industry. The proceeds of this cess will be credited to Provincial Revenues as usual. No portion of this cess is earmarked for any specific purposes. But in 1942-43, the U.P. Government spent a substantial amount from the General Revenues on (i) Cane Development Department, (ii) the staff for reservation and bonding of sugar-cane, (iii) the seasonal staff maintained for the administration of the United Provinces Sugar Factories Control Act, 1938, and the rules made thereunder, (iv) the Sugar Commission, (v) the special staff maintained at the Imperial Institute of Sugar Technology in connection with the technical and statistical work entailed by the Sugar Factories Control Act and Rules, and (vi) the staff maintained in connection with the Sugar Control Scheme of the Government of India.

The U.P. Government realized Rs. 61,07,755 as cess on sugar-cane during the financial year 1942-43. This also includes the proceeds of

the additional cess of 0-0-6 per maund of cane levied in order to recover the loan advanced by the Government of India in the form of deferred sugar excise duty with a view to assist the sugar industry of the province.

The sum advanced by the Government of Bihar to the industry in Bihar a few years ago in connection with Excise Duty has not yet been recovered in full. There was a sum of Rs. 5,70,000 yet to be realized at the end of November 1943. But the special cess on cane was discontinued from 1943-44.

The total amount collected from the Cane Cess in Bihar in 1942-43, was Rs. 22,74,000 of which Rs. 7,58,000 represented the ordinary cess and Rs. 15,16,000 represented the special cess for repayment of loan to the Government of India.

In Bihar also, the income from the cane cess is merged in the Provincial Revenue and no separate account is maintained of the expenditure from cess. The annual expenditure incurred by Government on the Cane Development and other schemes related to sugar-cane generally covers a large portion of the proceeds from the ordinary cess.

The Chairman, Sugar Commission of U.P. and Bihar assured the industry, however, (*vide* his letter to the Sugar Mills Association, No. 5784|Com E-7, dated the 22nd September, 1943) that "the proceeds of the cess though credited to General Revenues will in due course be utilized for the benefit of the industry and the growers".

TABLE No. 17

Import Duties on Sugar in India and Principal Countries in the World

As there have been so many changes due to the war in regard to the duties on sugar in the various countries, we are not giving the full table here. A reference may be made to the 1939 Annual for the import duties on sugar then existing.

The following table gives the duties in India :—

Import Duty on Sugar in India (1944)

Total Import Duty including 20% surcharge (with		
equivalent excise duty)	Rs.	11-1-71 5 per cwt.
equivalent to	Rs.	7-1-96 7 per maund.
Excise Duty on factory sugar	Rs.	3-0-0 per cwt.
in British India	Rs.	2-3-3 per maund.

The present import duty will continue till 31st March 1946.

TABLE No. 18

Quantity and value of Imports of Sugar (excluding re-exports and Molasses) in India in Tons (Net Figures) from 1929-30 to 1942-43 (April-March)*

Province	1929-30	1930-31	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38	1938-39	1939-40
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons†	Tons†	Tons Gross imports
Burma	...	42,690	40,102	28,335	26,391	19,649	17,428	16,231	3,926	...	...
Madras	...	90,899	83,610	78,201	53,782	53,884	49,793	39,314	189	(Excess re-export of 128 tons)	39,281
Bombay	...	211,027	212,847	128,884	111,346	97,408	80,063	80,731	276	2,572	12,239
Sind	...	218,700	230,589	109,391	85,618	59,822	50,282	42,524	3,903	9,206	13,182
Bengal	...	368,969	330,581	165,645	88,570	19,022	22,557	19,386	5,685	1,048	3,039
Total (British India) Tons ...	932,285	897,788	510,456	365,707	249,785	220,123	198,186	13,979	12,698	33,470	246,681
Value Rs. ...	15,34,41,259	10,47,24,881	5,90,44,292	4,07,18,023	2,63,03,043	2,04,67,091	1,85,43,143	9,33,104	14,66,538	42,10,102	31,10,53,305
Kathiawar ports	...	...	93,311	63,788	73,390	110,963	87,939	11,796	1,629	27,223	85,674
Value Rs. ...	...	...	1,06,19,578	76,51,159	75,10,678	96,57,949	77,23,384	12,36,148	74,262	28,16,281	1,08,29,405

* Figure of net imports not available after January 1940, as statistics discontinued. The following figures have been culled, however, from the *Indian Trade Journal*, dated 18th March 1943, for 1939-40 to 1942-43: Import (tons) 251,707 in 1939-40; 18,788 in 1940-41; 48,637 in 1941-42; 560 in 1942-43 (April to September).

† Imports into Burma excluded from 1937-38.

TABLE No. 19

Excise Duty and Import Duty on Sugar, Sugar Candy* and Molasses in India

On Sugar per cwt.	Protective Import Duty per cwt.	Additional Revenue Duty	Total Import Duty per cwt. Rs.
From 1st April, 1932 to 31st March, 1934	Rs. 7-4-0	Revenue surcharge @ 25% of protective duty Rs. 1-13-0	9-1-0
From 1st April, 1934 to 27th February, 1937	7-12-0 (0-8-0 being additional margin)	Equivalent excise duty Rs. 1-5-0	9-1-0
(Rs. 1-5-0 Excise Duty on domestic production of factory sugar)			
From 28th February, 1937	7-4-0	Equivalent excise duty Rs. 2-0-0	9-4-0
(Rs. 2-0-0 Excise Duty on domestic production of factory sugar)			
From 1st April, 1939	6-12-0	Equivalent excise duty Rs. 2-0-0	8-12-0
(Rs. 2-0-0 Excise Duty on domestic production of factory sugar)			
From 1st March, 1940	6-12-0	Equivalent excise duty Rs. 3-0-0	9-12-0†
(Rs. 3-0-0 Excise Duty on domestic production of factory sugar)			
From 1st April, 1942	6-12-0	Revenue surcharge of 20% amounting to Rs. 1-5-7 1/5 and Equivalent excise duty Rs. 3-0-0	11-1-7 1/5‡
(Rs. 3-0-0 Excise Duty on domestic production of factory sugar)			

* From 20th February 1934, a revenue duty of Rs. 10-8-0 per cwt. was imposed on sugar candy in place of Rs. 9-1-0 per cwt. The rate of import duty on molasses is 31½ per cent *ad valorem* since April 1932.

† The import duty of Rs. 11-1-7½ per cwt. works out at Rs. 7-1-9 per md. and Rs. 3-0-0 excise duty per cwt. works out at Rs. 2-3-3 per md.

This import duty has been continued till 31st March 1946.

‡ Total import duty includes surcharge of 20 per cent as from 1st April 1942.

TABLE No. 20

Yield of Revenue from Import Duty on Sugar¹ in India from 1931-32 to 1943-44
(Burma excluded from 1937-38)

Year (April-March)	Yield of Revenue Rs	Year (April-March)	Yield of Revenue Rs.
1931-32	7,97,63,000	1937-38	25,33,000
1932-33	6,84,79,000	1938-39	45,22,000
1933-34	4,72,04,000	1939-40	3,96,08,000
1934-35	3,81,35,040	1940-41	18,24,000
1935-36	3,24,16,000	1941-42	1,94,000
1936-37	50,52,000	1942-43	56,000
		1943-44	4,14,000*

* It is difficult to reconcile this figure (as the imports of sugar are reported to be negligible), given in Monthly return of Indian Customs and Central Excise Revenue.

TABLE No. 21

Excise Duty* on all Sugar produced in British India and Yield of Revenue therefrom from 1935-36 to 1944-45 Fiscal years (April-March)

Amount of duty per cwt.	Yield of Revenue from Excise Duty (in Thousand Rupees)									
	1935-36	1936-37	1937-38	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45 (Budget Estimate)
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Khandsari : Re. 0-10-0 (up to 27th Feb. 1937), Re. 1-0-0 (up to 28th Feb. 1939), and Re. 0-8-0 from 1st Mar. 1939.	60	47	51	59	146	286	443	157	327	6,40,000
			(Khandsari		Production)					[Includes collection of Rs. 40 lakhs under Sugar (Temporary Excise Duty) Ordinance, 1943]
Factory : Re. 1-5-0 (up to 27th Feb. 1937), Rs. 2-0-0 (up to 29th Feb. 1940), and Rs. 3-0-0 after 1st Mar. 1940	15,824	25,202	33,097	42,244	24,760	39,011	66,827	48,184	67,900	
			(Factory		Production)					
Total	15,884	25,249	33,148	42,303	24,906	39,297	67,270	48,341	68,227	6,10,000

* Excise duty on Khandsari sugar was levied at the rate of Re. 1 per cwt. from 28th February 1937. Excise duty on Khandsari sugar reduced to Re. 0-8-0 per cwt. from 28th February 1939, but made applicable to all Khandsari sugar manufactured with the aid of power. Definition of Factory in the Sugar (Excise) Duty Act, 1934, was modified for making a larger quantity of Khandsari sugar pay excise duty.

TABLE No. 22

Average price of Indian and Imported Sugar in India per maund of 82.2/7 lbs.

	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Indian 1st quality Special (Cawnpore market average quotation, (Factory Delivery Basis)	9-6-0	9-0-0	8-4-0	7-0-0	8-8-0	10-12-0	10-8-0	11-0-0	13-0-0	15-0-0
Imported Sugar (Calcutta market average quotation)	9-13-0	9-13-0	9-12-0	9-10-0	10-8-0	11-0-0	11-0-0	...	...	...

TABLE No. 23
Average price of Gur per maund

Gur Market	1940-41 (Nov. to Oct.) Rs. a. p.	1941-42 (Nov. to Sept.) Rs. a. p.	1942-43	1943-44
Madras ...	3 1 6	4 2 6	Rs. 8 to 10 on an average	Rs. 8 to 12 on an average
Ahmednagar ...	3 6 9	6 5 8		
Lyallpur ...	2 9 2	4 0 6		
	(No quotation) May, '41	(No quotation) Feb., June, July, August, Sept. '42		
Muzaffarnagar ...	3 0 7	5 13 9		
Meerut ...	2 12 11	5 12 10		
	(No quotation) August, '41	(No quotation) for March and Sept. '42		
Bhagalpur ...	3 0 1	5 10 3		
	(No quotation) for Mar., '41	(No quotation) for May, June, July and Sept. '42		
Dacca ...	5 5 4	9 7 7		

TABLE No. 24
Factory Sugar Excise Returns of British India* month by month during
1941-42 to 1943-44

Month	1941-42		1942-43		1943-44	
	Amount of Excise Duty collected in 000's Rs.	Calculated issues of sugar in 000's tons	Amount of Excise Duty collected in 000's Rs.	Calculated issues of sugar in 000's tons	Amount of Excise Duty collected in 000's Rs.	Calculated issues of sugar in 000's tons
April	48,92	81	30,52	50	19,27	32
May	37,73	62	27,46	45	16,11	26
June	37,62	62	21,87	36	31,26	52
July	15,99	76	29,03	48	40,33	67
August	55,70	92	25,91	43	38,60	64
September	7,80	1,26	33,23	55	34,20	57
October	55,25	92	34,04	58	—	—
November	71,95	1,19	31,60	57	50,92	84
December	45,41	75	37,01	61	40,38	67
January	62,84	1,04	21,03	35	33,85	56
February	31,31	57	40,61	67	47,43	79
March	53,40	89	56,68	91	35,60	59
Total...	6,68,27*	10,41	4,81,84**	549	6,79,00**	643

* One ton ordinarily refers to 10 bags. Previous year's figures in previous Annuals.

** Includes collection from Indian States, during the year. For the year 1943-44, collection from Sugar (Temporary Excise Duty), 1943, is also included.

N.B.—As excise duty of sugar issued out of factories in a particular month is charged in the following month, calculated issue of sugar always relates to the months previous to that in which excise duty is collected. Thus, 52,000 tons of sugar shown against May, 1944, were actually issued out of factories in April 1944. . . .

TABLE No. 25

Approximate Official Estimate of total Carry-over of Stocks of Sugar in India at the beginning of November, since 1931

Year	Tons
1931	32,000
1932	19,000
1933	9,000
1934	30,000
1935	23,000
1936	159,000
1937	211,000
1938	102,000
1939	105,000
1940	390,000
1941	295,000
1942	105,000
1943 (Our Est.)	120,000

TABLE No. 26

Total Tonnage and Earnings from Sugar refined and unrefined for all Class I Railways in India

Year April-March	Over E. I. Ry. in thousand Rs. & tons		Over O. & T. Ry. in thousand Rs. & tons		All Class I. Rys. in thousand Rs. & tons	
	Rs.	Tonnage	Rs.	Tonnage	Rs.	Tonnage
1932-33	15.61	160	22.33	249	1,29,17	1,057
1933-34	27.73	275	37.78	419	1,66,73	1,461
1934-35	26.69	277	33.77	377	1,56,82	1,414
1935-36	23.87	280	34.06	418	1,58,30	1,524
1936-37	32.18	402	48.74	620	2,30,10	2,205
1937-38	28.14	362	49.05	596	2,11,31	2,047
1938-39	28.45	442	48.19	621	2,15,91	2,236
1939-40	15.91	237	24.49	303	1,33,46	1,348
1940-41	28.73	360	37.09	460	2,07,75	1,899
1941-42	33.60	471	47.72	615	2,61,24	2,405
1942-43	25.74	311	...	...	...	...

TABLE No. 27

Total Tonnage and Earnings from Railway Freight on Sugar-cane on East Indian Railway and B. & N. W. Railway (Oudh & Tirhut Railway from 1942)

Year April-March	East Indian Railway		O. & T. Ry. (B. & N. W. Ry. & R. & K. Zone)	
	Earnings	Tonnage of sugar-cane carried	Earnings	Tonnage of sugar-cane carried
	Rs.	Tons	Rs.	Tons
1933-34	4,07,900	3,49,200	9,50,501	10,51,015
1934-35	5,32,100	6,36,500	14,46,935	14,26,958
1935-36	8,21,400	8,66,100	22,14,758	21,09,976
1936-37	7,48,500	8,60,400	19,36,219	22,06,611
1937-38	7,22,200	9,27,500	18,21,700	20,74,571
1938-39	5,25,600	6,38,800	16,84,619	20,77,950
1939-40	8,36,200	9,90,600	13,27,603	13,90,203
1940-41	6,37,000	8,01,200	19,17,436	19,66,322
1941-42	5,78,800	6,79,600	12,99,527	14,75,761
1942-43	7,39,200	8,89,000	10,27,608	11,51,913

TABLE No. 28

Railway freight O. R. on Sugar per maund from certain stations on the E. I. and
Oudh & Tirhut Railways to various Ports and Towns

From Stations	To Bombay		To Karachi		To Madras		To Vizagapatam Town		To Coconada		To Howrah		To Rangoon*		To Ahmadabad		To Tuticorin		To Akyab*											
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.										
Dehri-on-Sone	1	0	0	1	1	3	0	14	5	0	14	5	0	8	3	1	1	3	0	14	5	1	5	0						
Bihra	1	0	0	1	1	3	0	14	5	0	14	5	0	8	3	1	1	3	0	14	7	1	5	0						
Guraru	1	0	0	1	1	3	0	14	5	0	14	5	0	7	11	1	1	0	11	1	1	3	0	14	5	1	4	8		
Rosa	1	0	0	1	0	0	1	2	0	...	...	...	...	...	...	1	0	0	...	...	...	...	...	...	...	...	...	...
Lucknow	1	0	0	1	0	0	1	2	0	...	...	...	...	...	...	1	0	0	...	...	...	...	...	...	...	...	...	...
Motihari	1	1	6	1	2	0	1	0	0	1	0	0	1	0	0	0	11	6	1	5	6	1	2	0	1	2	2	1	8	6
Basti	1	0	3	1	0	6	1	1	0	1	1	0	1	1	0	0	15	6	1	9	6	1	0	6	1	3	2	1	12	6
Sardarnagar	1	0	0	1	1	0	1	0	6	1	0	6	1	0	6	0	13	8	1	7	8	1	1	0	1	2	8	1	10	8

N.B.—Traffic at these rates is subject to the increase of 0-2-0 per rupee on the total freight charge, which is in force on and from the 1st March 1940. So far as the traffic to Rangoon and Akyab is concerned, the increase in freight charge is leviable on Railway's proportion only.

* Railway's proportion is the same as Howrah rate. Rates for Rangoon and Akyab under suspension from 26th February 1942.

TABLE No. 29
Approximate Railway Freight on Sugar-cane in 1942-43

Railway	Kind of Wagon	Average Capacity	Distance	Rate per Wagon
				Rs. A. P.
A. B. Railway ...	4 wheeler	160 maunds	35 miles	8 14 0
E. B. Railway ...	4 wheeler	160 maunds	177 miles	27 0 0
E. B. & A. B. Rly. combined ...	4 wheeler	160 maunds	54 miles	17 8 0
O. & T. Railway ...	4 wheeler	270 maunds	55-60 miles	9 0 0
E. I. Railway ...	4 wheeler	480 maunds	39 miles	10 0 0
			up to 50 miles	14 0 0
			up to 100 miles	25 0 0

TABLE No. 30
Quantity and Value of Export of Sugar from India from 1932-33 to 1941-42¹

Year	Quantity in Tons	Value in Thousands of Rupees
1932-33	1,256	2,10
1933-34	1,626	2,37
1934-35	1,516	2,43
1935-36	1,415	2,38
1936-37	24,716	5,68
1937-38	93,463	39,72
1938-39	59,304	24,17
1939-40	16,739	7,95
1940-41	14,000	27,20
1941-42	19,000	31,78
1942-43 (maximum quantity fixed according to Sugar	Controller is 15,000 tons)	

* Annual Statement of the Sea-borne Trade of British India.

TABLE No. 31
Expenditure on Sugar Research by the Imperial Council of Agricultural Research*

Years	Amount spent or proposed to be spent	Directions in which generally spent
1935-36	4,79,088	Production and testing of new varieties of sugar-cane.
1936-37	3,88,627	Devising and testing systems of cultivation and manuring.
1937-38	3,46,820	Study and combating of insect and fungus pests
1938-39	3,24,928	Research in use of molasses as manure and cattle food.
1939-40	3,56,790	Sugar Marketing Survey.
1940-41	3,19,304	Utilization of Bagasse for the paper and board industry,
1941-42	3,74,580	Etc. Etc.
1942-43	3,57,446	
1943-44	4,90,090	

* Figures furnished by Imperial Council of Agricultural Research. (Vide their letter No. D.O. No. D.5088/43-D., dated New Delhi, 20th November 1943.)

TABLE No. 32

Estimated Percentage of Gate-cane to the Total Quantity of Cane (i.e. Gate-cane and Rail-borne cane) crushed in Factories in the various Provinces*

Province	1934-35 %	1935-36 %	1936-37 %	1937-38 %	1938-39* %	1939-40† %	1940-41 %	1941-42 %	1942-43 %
Bihar	48	50	58	53	53	53	65	63	70
United Provinces	65	66	68	72	66	62	69	80	85
Bengal	22	26	45	55	54	33	32	52	60
Punjab	...	51	61	69	57	47	55	80	80
Bombay	100	100	100	100	100	99	100	100	100
Madras	...	35	67	71	72	75	67	60	65

* Compiled by the Indian Sugar Syndicate Ltd. in September 1939.

† Compiled by us from the returns made by factories in 1939-40, 1940-41, 1941-42 and 1942-43.

TABLE No. 33

Table 33 shows the production, consumption and *per capita* consumption of sugar in the different Provinces and Indian States in 1938-39, 1939-40 and 1940-41 (1st November to 31st October). In estimating these figures also, no account has been taken of the differences between opening and closing invisible stocks and imports and exports by road. But it is believed that initial and closing invisible stocks do not differ appreciably and that the volume of inter-provincial traffic in sugar by road is not great. A better estimate of consumption will, however, be possible if statistics of markets stocks improve.

Production, Consumption and Per Capita Consumption of Sugar in the various Provinces and States, during the years 1938-39, 1939-40 and 1940-41 (Nov.-Oct.)

Name of Province	1938 39			1939-40			1940-41		
	Production	Consump- tion	Per capita Consump- tion	Production	Consump- tion	Per capita Consump- tion	Production	Consump- tion	Per capita Consump- tion
	Tons	Tons (in 1000)	Lbs.	Tons	Tons (in 1000)	Lbs.	Tons	Tons (in 100)	Lbs.
Bengal	...	139	5.8	45,800	161	6.7	64,600	178	6.6
Bombay	14,900	244	17.0	97,200	219	15.2	120,132	260	20.8
Madras	73,400	88	3.4	50,400	94	3.6	67,400	106	4.8
Bihar	38,700	50	(a) 2.8	328,800	57	(a) 3.1	257,100	69	(a) 3.9
United Provinces	166,600	170	7.1	783,400	153	6.3	708,592	244	9.8
Punjab	405,400	164	11.8	32,100	169	12.0	51,023	231	15.3
C. P. and Berar	19,800	37	4.2	...	38	4.3	...	47	6.3
Assam	...	19	4.1	...	16	3.5	...	20	4.4
Sind and British Baluchistan	...	34	14.1	...	35	14.3	...	44	19.5
Orissa	...	8	...	...	8	...	...	10	...
N.-W. F. P.	...	13	6.2	...	8	3.8	...	18	13.3
Delhi	...	16	44.8	...	20	44.8	...	22	53.7
Rajputana	...	37	6.7	...	38	6.8	...	48	7.9
Central India	...	24	4.6	...	25	4.8	...	35	6.8
Nizam's Territory	...	19	2.7	...	20	2.8	...	27	3.7
Kashmir	...	3	1.7	...	2	1.1	...	3	1.7
Mysore	...	8	2.6	...	11	3.5	...	14	4.3
ALL-INDIA	...	1,073	6.6	...	1,074	6.5	...	1,376	8.5

(a) Includes Orissa also.

TABLE No. 34

Total Production, Import and Export of Molasses in India* for the last 13 years

Year	Production of Molasses in India in Thousand Tons				Imports of Molasses into British India (Tons)	Export of Molasses from British India (including Palmyra and cane jaggery) (Tons)
	From Cane Factory	From Gur Refineries	From Khand-sari †	Total †		
Nov.-Oct.					Apr.-Mar.	Apr. Mar.
1931-32 ...	69	46	250	365	40,191	740
1932-33 ...	130	56	275	461	31,991	819
1933-34 ...	190	40	209	430	2,401	1,201
1934-35 ...	234	22	150	406	415	1,153
1935-36 ...	337	33	125	495	Nil	1,026
1936-37 ...	406	10	100	516	Nil	24,195
1937-38 ...	349	8	125	482	5	79,167
1938-39 ...	242	6	100	348	2,160	52,676
1939-40 ...	485	7	125	627	2,000	16,000
1940-41 ...	424	32	100	556	...	...
1941-42 ...	293	7	100	400	...	...
1942-43 ...	369	11	100	480	...	...
1943-44 ...	432	8	100	540	...	...

* After 1936-37, statistics regarding Burma are excluded

† Official estimates.

TABLE No. 35

Total value of Sugar Machinery imported in British India from 1932-33 to 1939-40*

(In Thousands of Rupees)

Source	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38	1938-39	1939-40
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
U. K. ...	91,48	1,95,87	73,60	49,70	68,49	43,15	30,16	...
Other Countries	61,63	1,40,51	31,84	16,00	26,66	26,21	31,20	...
	1,53,11	3,36,38	1,05,45	65,70	95,16	69,37	61,36	50,84

* Statistics discontinued after 1939-40.

TABLE No. 36

Calculated Net Production* of Gur in India for direct consumption, from 1937-38 to 1942-43

Year (November-October)	Calculated net Annual Production of Gur for direct consumption (in Tons)
1930-31	...
1931-32	...
1932-33	2,241,000
1933-34	2,758,000
1934-35	3,240,000
1935-36	3,486,000
1936-37	3,701,000
1937-38	4,101,000
1938-39	4,268,000
1939-40	4,364,000
1940-41	2,131,000
1941-42	2,441,000
1942-43	3,414,000
	2,829,000
	3,567,000

* The net production of gur is calculated by deducting from the total yield of cane expressed in terms of gur, and published in the "Final General Memorandum

TABLE No. 37
Increased Profit from Growth of Improved Varieties of Cane*
Per Canal Bigha ($\frac{1}{8}$ acre)

					Desi Cane	Improved Cane
					Rs. A.	Rs. A.
Cost of Seed, Cultivation and Manuring	...	...	...	...	51 6	55 10
Irrigation	...	...	...	...	7 4	7 4
Rent	...	...	...	...	10 0	10 0
Total Cost Rs.					68 10	72 14
Yield, Maunds	...	...	...	...	250 0	350 0
Value of Gur, 10% Recovery at Rs 3 per maund	...	...	...	...	75 0	150 0
Profit Rs.					6 6	32 2

* Vide Report of Sir John Russell, on the work of the Imperial Council, 1937, p. 102.

TABLE No. 38
Cane Factory Production of Sugar in U.P., Bihar and All-India
(in Tons) from 1931-32 to 1943-44

(Vide Indian Trade Journal, 6th April, 1944)

Season	U. P.	Bihar	All-India	Total quantity of cane crushed all factories in tons
1931-32	66,312	75,091	1,58,581	17,83,000
1932-33	1,40,344	1,28,610	2,90,177	33,50,000
1933-34	2,73,774	1,39,957	4,53,965	51,57,000
1934-35	3,15,600	1,84,038	5,78,115	66,72,000
1935-36	5,30,000	2,50,200	9,32,100	98,01,000
1936-37	6,08,600	3,29,300	11,11,400	1,10,87,000
1937-38	5,31,300	2,25,300	9,30,700	99,16,400
1938-39	3,20,300	61,600	6,50,800	70,04,800
1939-40	6,59,500	3,22,100	12,41,700	1,31,31,700
1940-41	5,13,300	2,46,100	10,95,400	1,12,90,900
1941-42	3,82,900	1,17,300	7,78,100	80,26,300
1942-43	6,12,500	2,37,400	10,70,700	1,01,18,500
1943-44	6,80,000	2,50,000	12,60,000	1,30,00,000
(Our estimate)				

on the Production of the Principal Crops in India", by the Director-General, Commercial Intelligence and Statistics, the gur equivalent of the cane used for purposes other than gur manufacture. Vide letter No. 8002/stat., dated 2nd February 1944, from the Director, Imperial Institute of Sugar Technology, Cawnpore, to the Chairman, Sugar Commission, U.P. and Bihar, Cawnpore, for figures from 1940-41 to 1942-43.

TABLE No. 39

Sugar and Sugar Products Control Order, 1943 *: Fixation of Prices of Sugar

The following Notification¹ [No. 20-SC (14)/43, dated the 10th November 1943] has been issued by the Government of India in the Department of Food:—

In exercise of the powers conferred upon me by sub-clause (1) of clause 6 of the Sugar and Sugar Products Control Order, 1943, and in supersession of clauses 1, 2 and 3 of the Notification of the Department of Food No. GVIII (1)/42, dated the 1st January 1943, and sub-clause (c) of clause 7 of the Notification of the Department of Commerce, No. P. & SC-225/42, dated the 28th November 1942, I, N. C. Mehta, Sugar Controller for India, fix the prices of sugars as follows with effect from the date of this Notification:—

1. Price per maund of crystal sugar, for sale *ex-factory*, according to grade, shall be as given in Table No. 39 on next page.

2. Price per maund of crushed sugar, for sale *ex-factory*, according to grade, shall be as given in the table below:—

Grade	Price per maund		
	Rs. A. P.		
13 15 2 0
12 14 15 0
11 14 13 0
10 14 11 0
9 14 8 0
8 14 5 0

3. Price per maund of refined sugar, for sale *ex-factory*, according to grade, shall be as given in the table below:—

Grain size		27		28		Above 28	
A A A	16 6 0	16 8 0	16 10 0	16 10 0	16 10 0
A A	16 4 0	16 6 0	16 8 0	16 8 0	16 8 0
A	16 2 0	16 4 0	16 6 0	16 6 0	16 6 0
B	16 0 0	16 2 0	16 4 0	16 4 0	16 4 0
C	15 14 0	16 0 0	16 2 0	16 2 0	16 2 0
D	15 12 0	15 14 0	16 0 0	16 0 0	16 0 0
E	15 11 0	15 13 0	15 15 0	15 15 0	15 15 0
F	15 10 0	15 12 0	15 14 0	15 14 0	15 14 0
G	15 9 0	15 11 0	15 13 0	15 13 0	15 13 0

Explanation.—"Refined sugar" means sugar manufactured by re-melting ordinary sugar in water, and by suitably treating and filtering the solution and recovering sugar therefrom after boiling in vacuum pans—the resulting sugar having colour not lower than Indian Sugar Standard No. 27, and being sufficiently pure to satisfy the following test, namely:—

The specific conductivity determined at 35°C. and multiplied by 10⁶ of a solution prepared by dissolving 5 grams of the sugar in conductivity water and making up to 100 c.c. should not exceed 15, after deducting the value for the specific conductivity, at the same temperature and multiplied by 10⁶, of the conductivity water used.

^{**} *Vide the Indian Trade Journal*, 18th November 1943.

^{*} For the text of the Sugar and Sugar Products Control Order, 1943, *vide* earlier portion of "The Sugar Industry at a Glance".

TABLE NO. 39
Price per maund of Crystal Sugar, for sale, ex-factory, according to grade
(Vide para 1, Table 39)

	19	20	21	22	23	24	25	26	27	28
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
A A A	15 5 6	15 7 0	15 9 0	15 10 6	15 12 6	15 14 0
A A	15 3 6	15 5 0	15 7 0	15 8 6	15 10 6	15 12 0
A	...	14 11 0	14 13 6	14 15 6	15 1 6	15 3 0	15 5 0	15 6 6	15 8 6	15 10 0
B	...	14 8 6	14 11 0	14 13 0	14 15 0	15 0 6	15 2 6	15 4 0	15 6 0	15 7 6
C	...	14 6 6	14 9 0	14 11 0	14 13 0	14 14 6	15 0 6	15 2 0	15 4 0	15 5 6
D	...	14 1 0	14 5 0	14 7 6	14 9 6	14 11 6	14 13 0	14 14 6	15 0 6	15 4 0
E	...	13 15 6	14 3 6	14 6 0	14 8 0	14 10 0	14 11 6	14 13 6	14 15 0	15 2 6
F	...	13 14 6	14 2 6	14 5 0	14 7 0	14 9 0	14 10 6	14 12 6	14 14 0	15 1 6
G	...	13 13 6	14 1 6	14 4 0	14 6 0	14 8 0	14 9 6	14 11 6	14 13 0	15 0 6

Type of Sugar

Sugar Candy	..	..	..	..	..	..	..	..	..	..
Bura	..	..	..	..	..	..	..	..	..	..
Khandsari	..	..	..	..	..	..	..	..	..	..

Maximum Ex-factory Price-
Per maund
Rs. 19 0 0
" 16 4 0
" 15 4 0

* Vide Notification of the Sugar Controller dated 20th November, 1943.

TABLE No. 40

Recovery of Sugar from Cane during 1932-35 to 1943-44

Provinces	Recovery of Sugar per cent Cane									
	1934-35	1935-36	1936-37	1937-38	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44
U. P. ...	8.56	9.60	9.65	9.18	9.14	9.37	9.87	9.87	10.16	9.88
Bihar ...	8.79	8.93	9.20	9.58	9.00	9.29	9.86	10.35	10.93	10.36
"All other Provinces" ...	8.77	9.00	9.60	9.77	9.91	9.88	9.34	9.22	9.95	...
All-India ...	8.66	9.29	9.50	9.38	9.29	9.45	9.70	9.69	10.28	9.92 approx.*

* Vide "Trade Journal", dated 4th March 1943. (First Memorandum on production of cane sugar.)

TABLE No. 41

Production of Sugar directly from Cane in Modern Factories in India, 1929-30 to 1942-43, and Recovery Percentage for Java

Season	Number of Factories producing Sugar direct from cane	Cane crushed	Sugar produced	Percentage Recovery for India	Percentage Recovery for Java*
		Tons	Tons		
1929-30 ...	27	989,776	49,768	9.07	11.76
1930-31 ...	29	1,317,248	119,859	9.00	10.92
1931-32 ...	32	1,783,499	158,581	8.89	11.56
1932-33 ...	57	3,350,231	290,177	8.66	12.84
1933-34 ...	112	5,157,373	453,965	8.80	12.55
1934-35 ...	130	6,572,000	578,115	8.66	13.23
1935-36 ...	137	9,801,748	932,100	9.29	12.77
1936-37 ...	137	11,687,200	1,111,400	9.50	11.87
1937-38 ...	136	9,916,400	930,700	9.38	11.77
1938-39 ...	139	7,001,800	650,800	9.29	12.23
1939-40 ...	145	13,131,700	1,241,700	9.45	...
1940-41 ...	148	11,290,900	1,095,400	9.70	...
1941-42 ...	150	8,026,300	778,100	9.69	...
1942-43 (Our Est.) ...	150	10,418,000	1,070,700	10.28	...
1943-44 ...	150	13,000,000	1,260,000	10.25	...

* Vide the Indian Trade Journal, 23rd September 1943.

TABLE No. 42

Value of imports of Sugar, Revenue from imports, and Rate of Import Duty on Sugar from 1920-21 to 1943-44

Year April-March	Value of foreign Sugar (net) imported in British India in Lakhs of Rupees*	Revenue from Import Duty on Sugar in Lakhs of Rupees**	Rate of Import Duty
1920-21 ...	1,850	185	10 p.c. <i>ad valorem</i>
1921-22 ...	2,750	412	15 p.c. <i>ad valorem</i>
1922-23 ...	1,549	487	25 p.c. <i>ad valorem</i>
1923-24 ...	1,515	486	" "
1924-25 ...	2,090	578	" "
1925-26 ...	1,520	659	Rs. 4-8-0 per cwt.
1926-27 ...	1,534	744	" "
1927-28 ...	1,450	653	" "
1928-29 ...	1,586	782	" "
1929-30 ...	1,836	846	" "
1930-31 ...	1,047	1,081	Rs. 6-0-0 per cwt.
1931-32 ...	590	798	Rs. 9-1-0 "
			(Rs. 7-4-0 being protective and Rs. 1-13-0 being revenue sur- charge from 1st April 1932.)
1932-33 ...	422	685	" "
1933-34 ...	270	472	" "
1934-35 ...	210	381	Rs. 9-1-0 per cwt. (Rs. 7-12-0 being protective & Rs. 1-5-0 being equivalent ex- cise duty from 1st April 1934.)
1935-36 ...	190	321	" "
1936-37 ...	23	51	" "
1937-38 ...	18	25	Rs. 9-4-0 per cwt. (Rs. 7-4-0 being protective and Rs. 2-0-0 being equivalent excise duty from 28th February 1937.)
1938-39 ...	45	45	" "
1939-40 ...		390	Rs. 8-12-0 per cwt. (Rs. 6-12-0 being protective and Rs. 2-0-0 being equivalent ex- cise duty. (With effect from 1st April 1939.) Rs. 9-12-0 per cwt.
1940-41 ...	36	18	Rs. 6-12-0 being protective and Rs. 3-0-0 being equivalent excise duty. (With effect from 1st March 1940.)
1941-42 ...	107	1.9	Rs. 11-1-7 1/5 per cwt. with effect from 1st April 1942 (i.e. including 20% surcharge on ordinary import duty of Rs. 6-12-0) and Rs. 3-0-0 being equivalent excise duty.
1942-43 ...	...	5	
1943-44 ...	...	4.1***	

* Annual statement of sea-borne trade (Burma excluded from 1937-38).

** This figure appears to be too large, looking to imports reported to be negligible. On an enquiry, however, we were informed by the Director-General of Commercial Intelligence that it represents duty collected in 1943-44 on sugar released from Bond out of stock imported during 1941 and 1942.

TABLE No. 43

Production of Sugar in the various Provinces from Cane, Gur and Khandari (i.e. TOTAL Production of Sugar) from 1931-32 to 1942-43 (Burma has been excluded since 1936-37)

Provinces	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons (Our Est.)	Tons (Our Est.)	Tons (Our Est.)
United Provinces	283,300	384,600	454,000	446,500	645,600	692,800	628,400	394,200	760,300				
Bihar	88,500	144,500	150,000	191,600	257,900	335,000	231,700	166,600	328,800				
Punjab	35,900	41,300	35,900	27,700	29,000	26,100	23,100	15,100	24,200				
Madras	28,600	35,300	30,000	31,000	33,700	33,700	34,600	36,000	47,000				
Bombay	19,800	21,100	23,200	28,300	35,900	43,200	46,900	57,300	75,500				
Bengal	12,500	13,800	15,900	18,900	31,200	29,400	26,000	14,900	45,800				
Other Provinces & States	2,000	2,600	8,800	27,600	71,700	76,800	82,200	81,400	111,600				
Total for India	470,600	643,200	718,900	771,600	1,105,000	1,237,000	1,072,000	765,500	1,383,200	1,268,900	891,900	1,294,700	1,370,000

* Vide the *Indian Trade Journal*, 30th May 1940, and 7th May 1943.

TABLE No. 44

Java Sugar Statistics from 1935-36 to 1940-41*

(In Long Tons)

Crop Year	Initial Stock on 1st April	Production	Exports	Local Consumption	Final Stock on 31st Mar.
1935-36	1,585,397	505,528	863,356	285,013	942,556
1936-37	942,556	583,029	975,003	309,449	241,133
1937-38	241,133	1,392,151	1,017,276	306,522	309,486
1938-39	309,486	1,376,824	1,163,809	315,922	206,579
1939-40	206,579	1,550,462	1,214,125	304,740	238,176
1940-41	238,176	1,579,697	837,342	351,828	628,703
1941-42	(No reliable Reports available since occupation of Java by Japanese)				

* *Vide* "Lamborn Weekly Report", issue of June 24th, 1941.

TABLE No. 45

An interesting Table regarding Per Capita Consumption of Gur and Sugar in certain Rural and Urban Areas* in pre-war period

Name of Province	Gur		Sugar	
	Urban areas (lb.)	Total for the Province (lb.)	Urban areas (lb.)	Total for the Province (lb.)
United Provinces ...	13'2 (1)	53'9	58'1 (2)	8'3
Punjab ...	18'0 (3)	23'3	50'4 (4)	12'8
Bengal ...	15'4 (5)	22'8	85'5 (5)	6'3
Madras ...	8'9 (6)	12'1	51'2 (6)	4'4
Bombay ...	12'4 (7)	14'4	81'4 (7)	16'3
Sind ...	6'0 (8)	7'2	82'1 (8)	17'8

(1) 22 markets, (2) 29 markets, (3) 6 markets, (4) Delhi, (5) Calcutta, (6) Madras, (7) Bombay, (8) Karachi.

* Report on the Marketing of Sugar published by Central Agricultural Marketing Department (Government of India), 1943, p. 130.

TABLE No. 46

Statement showing Sugar Production and Quotas allotted for Civilian Consumption for the Quota Year 1942-43 *

Areas	Production during 1942-43 (Tons)	Quota from		Total quota allotted for civilian consumption for 1942-43 (Tons)
		Local Production (Tons)	U. P. & Bihar (Tons)	
United Provinces ...	6,34,325	1,37,000	...	1,37,000
Bihar ...	2,37,671	46,500	...	46,500
Bombay ...	96,358	73,700	1,14,800	1,88,500
Madras ...	50,938	50,938	38,712	89,650
Punjab ...	10,831	10,831	1,30,169	1,41,000
Bengal ...	16,537	16,537	1,15,463	1,32,000
N.-W. F. P. ...	3,167	3,167	12,333	15,500
Orissa ...	2,092	2,000	5,000	7,000
Sind ...	2,008	2,000	26,500	28,500
Assam ...	...	...	12,000	12,000
Baluchistan ...	...	...	3,800	3,800
C. P. and Berar ...	...	...	30,000	30,000
Delhi ...	...	...	16,000	16,000
Hyderabad ...	12,300	12,300	2,700	15,000
Jammu and Kashmir ...	...	...	5,000	5,000
C. I. States ...	7,176	7,176	13,624	20,800
Rajputana ...	1,450	1,450	26,650	28,100
Total ...	10,74,853	3,63,599	5,52,751	9,16,350

* Supplied by the Sugar Controller for India on 9th December, 1943.

NOTE.—Where States are not shown separately their quotas are included in the British Indian Provinces adjoining them.

According to the Sugar Controller of India, Annual quotas for the Provinces and Indian States are fixed by him on the basis of consumption averages during the years 1934-35 to 1938-39. The sugar allowed for civilian consumption in 1942-43 may perhaps be 25 per cent less than the consumption requirements of the country which have appreciably increased as compared with the average of the pre-war years. The population in many towns and cities has increased even as compared with 1941 census figures. There has been a large influx of refugees in the country. The Allied forces stationed in the country have also increased. Again, conditions now are more prosperous than before and this has naturally resulted in a change in the social habits of the people leading to a higher demand for luxury foodstuffs. (Vide communication dated 26th April 1944, No. ISC (4) 44-1-3298, from the Dy. Sugar Controller for India, Simla.)

GANDHI & CO., (Publishers),
Jan Mansion,
Sir Pheroza Shah Mehta Road,
Bombay, 31st May, 1944.

M. P. GANDHI,
Editor.



THE SUGAR INDUSTRY AT A GLANCE, 1943

SUGAR INDUSTRY (PROTECTION) ACT, 1939*

(Present Duties to continue till 31st March 1946)

ACT NO. XX of 1939

An Act to provide for the continuance for a further period of the protection conferred on the sugar industry in British India.

Whereas it is expedient to provide for the continuance for a further period of the protection conferred on the sugar industry in British India, and to extend the date before which the Central Government is required under Section 3 of the Sugar Industry (Protection) Act, 1932, to lay before the Indian Legislature the proposals referred to in the said Section ;

It is hereby enacted as follows :—

- | | |
|--|---|
| Short Title | 1. This Act may be called the Sugar Industry (Protection) Act, 1939. |
| Amendment of
Sec.3 of Act XIII
of 1932 † | 2. In Section 3 of the Sugar Industry (Protection) Act, 1932, for the figure “1939” the figure “1941” shall be substituted. |

* Received assent of the Governor-General on March 31, 1941.

For the Sugar Industry (Protection) Act, 1932, and the Sugar Industry Protection (Temporary Extension) Act, 1938, see 1939 Sugar Industry Annual, pages 1 to 4.

† As amended, Section 3 of Act XIII, 1932, viz. the Sugar Industry (Protection) Act, 1932, will read as under :—

3. The Governor-General-in-Council shall cause to be made by such persons as he may appoint in this behalf, an inquiry to ascertain if the protection of the sugar industry during the period from the 31st day of March 1941 to the 31st day of March 1946, should be continued to the extent conferred by this Act, or to a greater or lesser extent, and shall, not later than 31st day of March 1941 lay his proposals in this behalf before the Indian Legislature.

Amendment of First Schedule to Act XXXII of 1934** 3. In Item No. 17 of the First Schedule to the Indian Tariff Act, 1934 :—

(a) In the fourth column, for the words and figures “plus Rs. 7-4-0 per cwt.” the words and figures “plus Rs. 6-12-0 per cwt.” shall be substituted;

(b) in the last column, for the figure “1939” the figure “1941” shall be substituted.

It is hereby declared that it is expedient in the public interest that Clause 3 of this Bill shall have immediate effect under the Provisional Collection of Taxes Act, 1931.

XVI of 1931

** As amended, Item No. 17 of the First Schedule to the Indian Tariff Act, 1934, will read as follows :—

17. Sugar, excluding confectionery	Protective	The rate at which excise duty is for the time being leviable on sugar, other than <i>khandsari</i> or <i>palmyra</i> sugar, produced in British India plus Rs. 6-12-0 per cwt.	Upto 31st March 1941
------------------------------------	------------	--	----------------------

By the Protective Duties Continuation Act 1942, the import duty on sugar was continued on the same level up to 31st March, 1944.

By the Protective Duties Continuation Act 1944 the existing protective duties on sugar [as also wood pulp, paper, silk manufactures, gold and silver thread and wire, (including the so-called gold thread and wire mainly made of silver), and iron and steel manufactures] were continued for a further period of two years, that is, up to 31st March, 1946.

It was observed in the Statement of Objects and Reasons that “in the present unsettled conditions no suitable data on the basis of which enquiries by a Tariff Board can be instituted is available. In the absence of such enquiries it is not possible to ascertain the quantum of production required during normal years and the object of this Bill is to maintain the *status quo* for a further period of two years, that is, up to 31st March 1946.”

Note.—The total import duty on sugar (including the equivalent excise duty of Rs. 3 per cwt. and the surcharge of 20 per cent imposed with effect from the 1st April 1942) amounts to Rs. 11-1-7 1/5 per cwt. with effect from 1st April 1944. It will be continued upto 31st March, 1946.

SUGAR EXCISE DUTY ACT, 1934

(Incorporating amendments made up to March 1940)

*An Act to provide for the imposition and collection of
an Excise Duty on Sugar*

(For Text of the Act, refer to earlier issues of the Annual.)

INTERNATIONAL SUGAR AGREEMENT

India does not join after September 1942.

Extract of important Articles from the Text of the International Sugar Agreement to which India was a signatory and by which she was prohibited from exporting sugar by sea elsewhere than to Burma (for a period of five years) up to 31st August 1942.

(Full Text of the Agreement in 1937 Annual)

ARTICLE 16

(a) The Government of India undertakes to prohibit exports of sugar by sea elsewhere than to Burma during the period of the present Agreement.

(b) In the event of re-export of Indian sugar by sea from Burma rendering the Government of India's contribution to the present Agreement ineffective, the Government of India will take up the matter with the Government of Burma with a view to reaching agreements which will render the Government of India's contribution effective.

ARTICLE 50

(a) Subject to the provisions of Article 51, the present Agreement shall remain in force for a period of five years from the date of its entry into force and shall not be subject to denunciation.

<p>India was released from this obligation not to export sugar by sea, with effect from 1st September 1942</p>

Government's Press Communique—India free to export sugar.

We give below a Press Note which was issued by the Government of India in this connection, in September 1942 :

“ After consulting the Sugar Industry, the Provincial Governments and other interests concerned and the Central Sugar Advisory Board,

a body composed entirely of representatives of Central, Provincial and State Governments, the Government of India have decided not to join in the proposed extension of the International Sugar Agreement. India's obligations under the Agreement will thus terminate from September 1, 1942.

"India was a party to the International Sugar Agreement which was concluded in 1937 with a view to establishing and maintaining an orderly relationship between supply and demand of sugar and to regulate the world prices of sugar. Under this agreement India undertook to prohibit exports of Indian sugar by sea elsewhere than to Burma.

"The present term of the Agreement expires on August 31, 1942, and the International Sugar Council recommended to the contracting Government a continuance of the Agreement either for the duration of the war and for one quota year after the date of termination of hostilities or for a period of two years from August 31, 1942, whichever be less."

A subsequent notification issued by the Finance Department cancels the Government Notification of January 1, 1938, which prohibited the taking of sugar by sea out of British India.

Export Trade Control (of Sugar and Molasses) in 1943

The Government of India, Commerce Department, issued a Notification No. 91-C.W.(1)43, dated the 6th March 1943 whereby in exercise of the powers under Rule 84 of the Defence of India Rules, they were pleased to prohibit the export to any place outside India of several goods listed in the Schedule, unless covered by an Export Licence issued by the Export Trade Controller.

This list includes "sugar including molasses".

Prohibition of issue of Sugar out of a Factory on the Budget Day

Copy of Instruction dated 14th February 1938

A notification was issued by the Government of India, Finance Department, on 28th December 1940, whereby "no sugar shall be issued out of a factory or used within a factory in the manufacture of any commodity other than sugar, after 5 p.m. on the day appointed for the presentation of the annual or supplementary budget of the Central Government to the Chambers of the Indian Legislature".

U. P. GOVERNMENT AND BIHAR GOVERNMENT

Sugar Control Board (1943-44)

The following persons have been nominated members of the re-constituted Sugar Control Board of U. P. and Bihar by a notification dated 10th August, 1943 :—

The Adviser to His Excellency the Governor, United Provinces, Revenue ; The Adviser to His Excellency the Governor of Bihar, Development ; Mr. Jamuna Karjee, M.L.A., Bihar ; Chaudhury Kalika Prasad Roy, Dumraon (Bihar) ; Lala Har Sahai Gupta, Shanker Agricultural Farm, Bilari (Moradabad) ; Mr. Altaf Husain, Agricultural Farm, Basuli, P.O. Siswabazar (Gorakhpur) ; Thakur Malkhan Singh, Cane Development Union Ltd., Deoband (Sahranpur) ; Mr. N. A. Shervani, Neoli Sugar Factory, Neoli (Etah) ; Mr. D. P. Khaitan, 8, Royal Exchange Place, Calcutta ; Mr. D. R. Narang, M.B.E., Basti Sugar Mills Co., Ltd., Basti ; Mr. C. O'Malley, Begg, Sutherland & Co., Ltd., Cawnpore ; Mr. Gurusharan Lal, Gaya Sugar Mills Ltd., Guraru (Bihar) ; Mr. Satyapal Varma, Cawnpore Sugar Merchants' Association, Cawnpore ; The Secretary to the Government of Bihar, Development Department and Employment Department ; The Secretary to the Government of United Provinces in the Agriculture Department.

U. P. AND BIHAR SUGAR COMMISSION

In August 1940, the U. P. and Bihar Governments set up a "Sugar Commission, which would be the final authority, subject to Government control, on all matters connected with the production and sale of sugar, as well as other matters regarding cane prices, etc."

The Chairman of the Commission is Mr. J. E. Pedley, C.I.E., M.C., I.C.S., and the Cane Commissioners of U. P. and Bihar are *ex-officio* members of the Commission. They are *ex-officio* members of the Board of Directors of the Indian Sugar Syndicate. The office of the Sugar Commission is located at Cawnpore.

The Chairman of the Commission was also appointed Provincial Sugar Controller for U. P. in 1942.

N.B.—To remain in force until the close of 1946-47 season.

THE UNITED PROVINCES SUGAR FACTORIES CONTROL ACT, 1938 *

(Act No. I of 1938)

(As amended by the U. P. Sugar Factories Control Amendment Act),
1939,** November 1940 and January 1941,*** and
December 1943†

AND

THE BIHAR SUGAR FACTORIES CONTROL ACT, 1937 †

(Bihar Act VII of 1937)

(As amended by the Bihar Sugar Factories Control Act), November 1940
and January 1941 ***

*Amendments to the U. P. and Bihar Sugar Factories Control Act
in 1942 and 1943*

During 1942 the Bihar and U.P. Governments proposed an amendment to the Control Acts with a view to maintain the continuity of work and to continue the operation of the Acts till the end of the crushing season of 1946-47. A copy of the Statement of Objects and Reasons appended to the U.P. Sugar Factories Control (Amendment) Bill, 1943, is given elsewhere in the body of the Annual. (For the text of the U.P. and Bihar Sugar Factories Control Act and Rules thereunder, see previous issues of this Annual.)

In order to save paper, the clauses of the amended Act are not reproduced below but the Statement of Objects and Reasons to the U.P. Bill will be found in the body of the Annual. Such a statement in respect of Bihar Bill was given in 1942 Annual on page vi. These are comprehensive and it will point out the directions in which the Acts have been amended.

By these amendments, the life of the U.P. and Bihar Sugar Control Acts have been extended till the end of the crushing season 1946-47.

* Received assent of the Governor of U. P. on 10th February 1938.

** Received assent of the Governor of U. P. on 29th June 1939.

*** Received assent of the Governor in November 1940, and January 1941.

† Received assent of the Governor in December 1943

† Received assent of the Governor of Bihar on 22nd December 1937.

SUGAR CONTROL ORDER, 1942 *

We give below a copy of the Press Note issued by the Government of India on 13th April 1942, containing the announcement regarding the assumption of control of sugar prices by the Government of India.

Announcement Re : Central Government's Control on Sugar Prices

Press Note issued on 13th April 1942

The Government of India have for some time been considering the question of introducing price control in respect of sugar, in view of the recent steep rise in prices and, after discussion at the recent Price Control Conference, have decided to take immediate action in this respect, says a Press Note.

A Sugar Controller for India has been appointed (Mr. N. C. Mehta, I.C.S.). Powers are conferred on him to fix ex-factory prices, which for equal qualities will be the same throughout India, to register dealers and to control the distribution of sugar from specific factories to specific markets in view of the need for securing the utmost economy of transport.

The price fixed for sugar of quality C28 (*Marhowrah*) is Rs. 11-12 *per maund ex-factory*: attached to the order fixing this price is a schedule of differences in grade prices which shows the proper price for sales ex-factory of other kinds of sugar. This rate allows for the payment of seven annas per maund for sugarcane by the factories in the U.P. and Bihar, and in cases where cane has been supplied at cheaper rates in those provinces will enable the factories to pay an adequate deferred bonus to cultivators.

The scheme applies to all sugar made in factories in India by the vacuum pan process. Existing contracts of sale entered into by factories will not be capable of fulfilment to the extent that they provide for delivery at excessive prices or to persons other than approved purchasers. The object of this last restriction is to eliminate speculative purchases by those who are not really connected with the trade.

One result of the fixation of prices on an ex-factory basis is that, although the Controller has power to regulate distribution, he will not be able to prevent delivery prices at consuming markets varying slightly according to varying freight rates: the order will be amplified as soon as possible in order to secure an adjustment of this difficulty and when that has been done, it will be possible for price control authorities to determine accurately the proper control rate to apply to transactions

* Superseded in July, 1943. *Vide* pp. xlviii and xlvix.

of local dealers. In the meantime, the existence of these slight variations will not deprive the consumer of more than a fraction of the relief which this measure of control will bring him.

The whole subject will be reviewed before the beginning of the next crushing season.

Text of the Sugar Control Order, 1942

First issued on 14th April 1942

[Text incorporating all amendments made up to the 10th of February 1943.]

DEPARTMENT OF COMMERCE

NOTIFICATION

Sugar Control Order—as amended by the Food Department Notification No. 1-SC(6)|42, dated the 21st December 1942, published in the “Gazette of India”, dated the 2nd January 1943.

In exercise of the powers conferred by Sub-Rule (2) of Rule 81 of the Defence of India Rules and in supersession of No. 1-SC(6)/42. the Sugar Control Order, 1942, published with the Notification of the Government of India in the Department of Commerce No. Econ.Ad.(P.C.)-225|42-(1), dated the 14th April 1942, the Central Government is pleased to make the following Order, namely:—

1. (1) This Order may be called the Sugar Control Order, 1942.
- (2) It extends to the whole of British India.
- (3) It shall come into force at once.

2. In this Order, unless there is anything repugnant in the subject or context,

(a) “Controller” means the person appointed as the Sugar Controller for India by the Central Government, and includes any person authorised by the said Controller to exercise all or any of the powers of the Controller under this order.

(b) “dealer” means a person dealing in the purchase, sale or distribution of sugar.

(c) “ex-factory price” means the price of sugar inclusive of excise duty packed in accordance with the usual market practice, and loaded at the buyer’s option, on buyer’s cart or lorries, or into railway wagons

at the railway station or siding generally used by the producer, and all incidental charges, including those for siding and forwarding, being on account of the ex-factory seller.

(d) "producer" means a person carrying on the business of manufacturing sugar with the aid of power and using vacuum pans or evaporators ;

(e) "recognised dealer" means a dealer who has been recognised by the Controller for the purposes of this Order.

(f) "Sugar" means any form of sugar containing more than 90 per cent of sucrose.

3. No producer shall, after such date as the Controller may notify in this behalf, dispose of, or agree to dispose of, or, in pursuance of any agreement entered into on or before such date make delivery of, any sugar, except

(i) to or through a recognised dealer, or

(ii) to a person specially authorised by the Controller to acquire sugar on behalf of the Central Government or of a Provincial Government or of an Indian State.

4. If the Controller has reason to believe that the production of special types of sugar is likely adversely to affect the production of adequate quantities of ordinary sugar he may, by general or special order, prohibit, or limit to such quantities as may be specified in the order, the manufacture by any producer or by producers generally of such types or grades of sugar or sugar products as the order may specify, and no producer to whom such order applies shall manufacture any sugar or sugar products in contravention thereof.

5. Every dealer shall comply with such directions regarding the sales, stocks or distribution of sugar as may be given to him by the Controller.

6. (1) The Controller may, from time to time, fix the prices at which any sugar may be sold.

(2) Where such prices have been fixed—

(a) the price at which any sugar may be sold for delivery otherwise than ex-factory shall be the price fixed under sub-clause (1) for sale ex-factory plus such charges in respect of transport to or in specified areas and other incidental charges as are approved by the Controller ;

(b) no person shall sell or purchase or agree to sell or purchase any sugar at a price different from that fixed under the provisions of this clause ;

(c) no sugar shall be delivered or accepted in pursuance of an agreement entered into before such fixing of prices which provides for the payment of a price different from that fixed under the provisions of this clause unless the agreement is by consent of parties so revised as to substitute for the price originally agreed the prices so fixed.

7. (1) The Controller may, from time to time—

(i) allot quotas for the requirements of any specified province or other area, or of any specified market, and

(ii) issue directions to any producer to supply sugar to such areas or markets or such persons or organisations, in such quantities, or such types or grades, at such times and in such manner as may be specified by the Controller.

(2) Every producer shall, notwithstanding any existing agreement with any other person, give priority to, and comply with, any directions issued to him under sub-clause (1).

8. (1) No sugar in consignments of more than one bag shall, after such date as the Controller may notify in this behalf, be offered for transport by rail by a consignor or accepted by a Railway for transport except under a permit issued by the Controller in such form and subject to such conditions and in respect of such areas as he may from time to time prescribe :

Provided that this clause shall not apply to the transport by rail of sugar (a) by a *bona fide* traveller as part of his personal luggage, or (b) under and in accordance with Military Credit Notes, or (c) under and in accordance with a permit issued by a Provincial authority before the date of this notification.

(2) A permit issued in pursuance of sub-clause (1) shall be returned by the consignor to the Controller on completion of despatch, or on expiry of the period of its validity, whichever is earlier, with the particulars of actual despatches in the prescribed form.

(3) For the purposes of this clause "sugar" means sugar manufactured by any process, including sugar made in vacuum pan factories from cane or *gur* or palmyrah jaggery, as well as khandsari sugar, sugar candy (misri) and bura but excluding powdered jaggery.

9. The Controller may, by notification in the official *Gazette*, make rules for carrying into effect the purposes and objects of this Order.

10. Notwithstanding the supersession of the Sugar Control Order, 1942, published with the Notification of the Government of India in the Department of Commerce, No. Econ.Ad.(P.C.)-225/42-(1), dated

the 14th April 1942, all notifications, orders and directions issued thereunder shall, so far as they are not inconsistent with this Order, be deemed to have been made hereunder.

Important provisions of Sugar Control are given below :

Under Notification No. 35-SC(1)|42, dated 6th July 1942, it was intimated that the Sugar Controller for India hereby notifies that *no sugar in consignments of more than one bag shall, on or after the 1st August 1942, be offered for transport by rail by a consignor or accepted by a Railway for transport from any Railway station within the United Provinces or the Province of Bihar to any place outside these Provinces, except under a permit issued by Authorities mentioned therein.*

In a later Notification No. 35-S.C.(1)|42, dated 12th September 1942, the Sugar Controller for India intimated that no sugar in consignments of more than one bag shall, with effect from the date of the Notification, *be offered for transport by rail by a consignor or accepted by a Railway for transport from any Railway station in a Province specified in the first column of the Schedule to the Notification to a Railway station outside the area specified in the corresponding entry in the second column of the Schedule* except under a permit issued by the Sugar Controller for India or any other person authorised by him in this behalf.*

Frequent changes in Sugar Prices in 1942-43

Immediately after the Sugar Control Order was announced the sugar mills represented that it was unfair to fix the price of sugar at Rs. 11-12-0 per maund for C28 Marhowrah sugar. The price was revised to Rs. 12-3-6 immediately thereafter by the Government of India. According to the industry, however, even this price based on the cane price of 7 annas was not fair as it did not take into consideration the increased cost and the high prices of stores, chemicals, war risk insurance, dearness allowances, increased wages, etc. The industry represented in December 1942 to the Government of India that the prices of sugar fixed by them under the Sugar Control Order, dated the 28th November 1942, were utterly inadequate. A deputation of the industry waited on the Commerce Member of the Government of India at New Delhi on 17th December 1942, in connection with the revision of the sugar prices and better distribution of sugar. As a result thereof the Government of India decided to increase the price

* Schedule not given. Generally the movement was restricted to the same province. For instance, Bombay sugar could not move beyond Bombay, and Bihar sugar beyond Bihar.

of sugar ex-factory by Rs. 2-5-0 per maund with effect from 1st January 1943. The communique is reproduced below.

The prices fixed for various grades of sugar as on 1st February 1943 are given along with the text of the Sugar Control Order in the previous pages.

It will be of interest to note that the prices fixed under the Sugar Control Order do not apply to sugar of the name and specifications given below.*

Sugar prices increased by Rs. 2-5-0 per maund from 1st January 1943

We give below copy of Press Communique regarding the increase in the prices of sugar :—

“NEW DELHI, December 31.—It has been represented to the Government of India, says a communique, that the prices for sugar prescribed in a Notification dated November 28, 1942, are inadequate in view of the rise in the cost of cane and the increase in working expenses due to the general rise in prices and the necessity for war risk insurance.

The Government of India have examined these representations and are satisfied that the situation justifies an increase of the prices fixed last year for the various grades of sugar. They have, therefore, decided that in order to enable the factories to pay a price sufficiently high to secure the requisite supplies of cane and to meet the higher costs of manufacture, the sugar prices announced in the Notification referred to above shall be enhanced with effect from January 1, 1943, by Rs. 2-5-0 per maund thus raising the ex-factory price for standard D24 sugar to Rs. 14 per maund.”

N.B.—With effect from the same date the minimum cane price in the U.P. and Bihar was increased from 0-8-0 per maund to 0-10-0 per maund.

Amendment to Sugar Control Order—Sugar and Sugar Products Control Order—1943

A few months after the institution of the control over sugar in April 1942, it was noticed that substantial quantities of sugar were being diverted to the manufacture of ‘peppermints’ and confectionery which commanded a ready sale at very high prices in some of the countries in the neighbourhood where the prices of sugar were exorbi-

* Demerara crystal sugar, cube sugar, cone sugar, coffee crystals and icing sugar.

tant and where such articles were reported to be used as substitute for ordinary sugar. In addition to large-scale evasion of the restrictions in respect of inter-provincial transport of sugar imposed by the Sugar Controller, it was noticed that sugar in the form of 'peppermint' 'Ola ladoo' and other amorphous forms was exported from India to neighbouring foreign countries where the sweetening stuff was sold at fancy prices. Owing to the large-scale diversion of ordinary sugar to the manufacture of sugar products, it was found necessary to amplify the Sugar Control Order in order to bring all sugar and sugar products under control, and to give powers to the Controller to regulate the prices and movements of sugar as well as sugar products. Accordingly, the Sugar and Sugar Products Control Order (which supersedes the Sugar Control Order 1942), was enacted in July, 1943, whereby the Sugar Controller for India is empowered to control the production, distribution and prices of sugar products as well.

Text of the Sugar and Sugar Products Control Order of July 1943, as amended up to the 4th April 1944, is given below :—

DEPARTMENT OF FOOD

GOVERNMENT OF INDIA

SUGAR AND SUGAR PRODUCTS CONTROL ORDER, 1943

*New Delhi, the 1st July 1943, as amended upto 4th April 1944,
by Notification No. 1-SC (1)/44 dated 4th April 1944*

No. 1-SC (1)/43.— In exercise of the powers conferred by the Sub-Rule (2) of Rule 81 of the Defence of India Rules and in supersession of the Sugar Control Order, 1942, published with the Notification of the Government of India in the Department of Commerce, No. 1-SC(6)/42, dated the 29th June 1942, and modified by subsequent notifications, the Central Government is pleased to make the following Order, namely :—

1. (1) This order may be called the Sugar and Sugar Products Control Order, 1943.

(2) It extends to the whole of British India.

(3) It shall come into force at once.

2. In this Order unless, there is anything repugnant in the subject or context,

(a) "Controller" means the person appointed as the Sugar Controller for India by the Central Government, and includes any person

authorised by the Controller to exercise all or any of the powers of the Controller under this Order ;

(b) "dealer" means a person carrying on business in the purchase, sale or distribution of sugar or sugar products ;

(c) "ex-factory price" means the price of sugar inclusive of excise duty packed in accordance with the usual market practice, and loaded at the buyer's option, on buyer's carts, lorries or other means of transport, or into railway wagons at the railway station or siding generally used by the producer, and all incidental charges including those for loading and forwarding, being on account of the ex-factory seller ;

(d) "producer" means a person carrying on the business of manufacturing sugar or sugar products or both with the aid of electrical energy or any other form of energy which is mechanically transmitted, and is not generated by human or animal agency ;

(e) "recognised dealer" means a dealer who has been recognised as such by the Controller for the purposes of this Order ;

(f) "sugar" means (i) any form of sugar containing more than 90 per cent of sucrose ; (ii) any sugar of crystalline structure.

(g) "sugar product" means any article manufactured from, and containing, sugar not less than 25 per cent of its weight.

3. No producer shall, after such date as the Controller may notify in this behalf, dispose of, or agree to dispose of, or, in pursuance of any agreement entered into on or before such date make delivery of, any sugar, except—

(i) to or through a recognised dealer, or

(ii) to a person specially authorised in this behalf by the Controller to acquire sugar on behalf of the Central Government or of a Provincial Government or of an Indian State.

4. (1) If the Controller has reason to believe that the production of special types of sugar or sugar products is likely to affect adversely the production of adequate quantities of ordinary sugar, he may, by general or special order, prohibit, or limit to such quantities as may be specified in the order, the manufacture by any producer or by producers generally of such types or grades of sugar or sugar products as the order may specify, and no producer to whom such order applies shall manufacture any sugar or sugar products in contravention thereof.

(2) For the purposes of sub-clause (1), "producer" includes a person carrying on the business of manufacturing any form of sugar

containing more than 90 per cent sucrose including Khandsari sugar, Desi sugar and Bura.

5. Every producer and dealer shall comply with such directions regarding the sales, stocks or distribution of sugar or sugar products as may from time to time be given to him by the Controller.

6. (1) The Controller may, from time to time, fix the price at which any sugar or sugar product may be sold or delivered.

(2) Where the price has been so fixed—

(a) the price at which such sugar or sugar product may be sold for delivery otherwise than *ex-factory* shall be the price fixed under sub-clause (1) for sale *ex-factory plus* such charges in respect of transport to or in specified areas and other incidental charges as are approved by the Controller ;

(b) no person shall sell or purchase or agree to sell or purchase such sugar or sugar product at a price different from that fixed under the provisions of sub-clause (1) ;

(c) no such sugar or sugar product shall be delivered or accepted in pursuance of an agreement entered into before such fixing of prices which provides for the payment of a price different from that fixed under the provision of sub-clause (1) unless the agreement is by consent of parties so revised as to substitute for the price originally agreed the price so fixed.

7. (1) The Controller may, from time to time—

(i) allot quotas of sugar or sugar products or of both for the requirements of any specified province, or area, or market,

(ii) issue directions to any producer or dealer to supply sugar or sugar products to such provinces, areas or markets or such persons or organisations, in such quantities, of such types or grades, at such times, at such prices and in such manner as may be specified by the Controller, and

(iii) require any producer or dealer to keep in reserve stocks of sugar or sugar products in such quantities and of such types and grades as he may direct from time to time.

Provided that where price of any sugar or sugar product has been fixed in accordance with sub-clause (1) of clause 6 the Controller shall in respect of such sugar or sugar product specify the price under para. (ii) of this sub-clause accordingly.

(2) Every producer shall, notwithstanding any existing agreement with any other person, give priority to, and comply with, any directions issued to him under sub-clause (1).

8. (1) No sugar shall, after such date as the Controller may notify in this behalf, be offered for transport by railway or in any manner whatsoever by land or water by a consignor or accepted by a railway servant or by any person whatsoever for transport except under a permit issued by the Controller in such form and subject to such conditions and in respect of such areas as he may from time to time prescribe :

Provided that this clause shall not apply to the transport by railway or in any manner whatsoever by land or water of sugar (a) not exceeding twenty seers, by a *bona fide* traveller as part of his personal luggage, or (b) under and in accordance with Military Credit Notes, or (c) under and in accordance with a permit issued by a Provincial authority before the date of this notification.

(2) A permit issued in pursuance of sub-clause (1) shall be returned by the consignor to the Controller on completion of despatch, or on expiry of the period of its validity, whichever is earlier, with the particulars of actual despatches in the prescribed form.

(3) For the purposes of this clause "sugar" means sugar manufactured by any process, including sugar made in vacuum pan factories from cane or gur or palmyra jaggery, as well as khandsari sugar, sugar candy (misri) and bura.

9. The Controller may, by notification in the official *Gazette*, make rules for carrying into effect the purposes and objects of this Order.

10. Notwithstanding the supersession of the Sugar Control Order, 1942, all notifications, rules, orders, authorizations, quotas, requirements, and directions issued thereunder shall, so far as they are not inconsistent with this Order, be deemed to have been made hereunder, and they shall continue in force until rescinded or modified hereunder.

E. WOOD, Secy.

Text of the Gur Control Order of 24th July 1943, as amended up to 16th March 1944, is also given below :—

DEPARTMENT OF FOOD

Government of India

GUR CONTROL ORDER

*New Delhi, the 24th July 1943, as amended upto 16th March 1944,
by Notification No. 11-SC (6) /44, dated 16th March 1944.*

No. 11-SC(6)/43-1.—In exercise of the powers conferred by sub-rule (2) of Rule 81 of the Defence of India Rules, the Central Government is pleased to make the following Order :—

1. (1) This Order may be called the Gur Control Order, 1943.
- (2) It extends to the whole of British India.
- (3) It shall come into force at once.

2. In this order, unless there is anything repugnant in the subject or context,

(a) "Controller" means the person appointed as Gur Controller for India by the Central Government, and includes any person authorised by the said Controller to exercise all or any of the powers of the Controller under this Order ;

(b) "dealer" means a person dealing in the purchase, sale, or distribution of Gur ;

(c) "producer" means a person carrying on the business of producing Gur ;

(d) "Gur" means articles commonly known as Gur, Gul, jaggery, palmyra jaggery, shakkar and rab, and includes raw sugar as also uncrystallised sugar in any other form comprising of original and convertible molasses and other impurities, inherent or foreign, prepared by boiling cane or palmyra juice ;

(e) "Sugar" means any form of sugar containing more than 90 per cent of Sucrose.

3. The Controller may, from time to time, fix by notification in the official *Gazette* for any specified area the maximum prices at which Gur may be sold or delivered, and different rates of prices may be so fixed by him for different areas or different types or grades of Gur.

4. Every producer and dealer shall comply with such directions regarding the production, sales, delivery, stocks, distribution or prices of Gur as may from time to time be given by the Controller.

5. If in the opinion of the Controller the unregulated production of Gur in any area is likely to affect adversely the production of sugar in quantity which in his opinion is required for the needs of the community, he may, by order published in the official *Gazette*, provide for all or any of the following matters :—

(a) prohibit or restrict the export of sugarcane to any place outside that area ;

(b) direct that cane-growers in that area shall deliver sugarcane to a specified sugar factory or factories in accordance with such conditions in regard to quantity, price, and time of delivery as may be specified by the Controller ;

(c) prohibit, or restrict to such quantities or qualities or both as may be specified by the Order, the manufacture of Gur by all or any class of producers in the said area.

6. (1) The Controller may, from time to time—

(i) allot quotas of Gur for the requirements of any specified province or area, or of any specified market, and

(ii) issue directions to any producer or dealer to supply Gur to such areas or markets or such persons or organisations, in such quantities, of such types, or grades, at such times, at such prices and in such manner as may be specified by the Controller.

(2) Every producer or dealer shall, notwithstanding any existing agreement with any other person, give priority to, and comply with, any directions issued to him under sub-clause (1).

7. No Gur, shall, after such date and from such area as the Controller may notify in this behalf, be offered for transport by railway or in any manner whatsoever by land or water by a consignor or accepted by a railway servant or by any person whatsoever for transport or transported by rail, road or water except under a permit issued by the Controller in such form and subject to such conditions and in respect of such areas as he may from time to time prescribe :

Provided that this clause shall not apply to the transport by railway or in any manner whatsoever by land or water of Gur (a) by a *bona fide* traveller as part of his personal luggage, or (b) under and in accordance with military credit notes, or (c) under and in accordance with a permit issued by a Provincial authority before the date of this Order.

Explanation.—For the purposes of this clause Gur not intended for the personal use of the traveller and members of his family shall not be deemed to be his personal luggage.

8. The Controller may, by notification in the official *Gazette*, make regulations for carrying into effect the purposes of this Order.

No. 11-SC (6)/43-II.—Mr. N. C. Mehta, I. C. S., is appointed Gur Controller for India.

No. 11-SC (6)/43-III.—In exercise of the powers conferred by sub-section (4) of Section 2 of the Defence of India Act, 1939 (XXXV of 1939), the Central Government is pleased to direct that the powers conferred on it by clause (e) of sub-rule (2) of Rule 81 of the Defence of India Rules shall, in respect of the undertaking engaged in the production or distribution of Gur, be exercisable also by the Gur Controller for India.

E. WOOD, Secy.

Simla, the 24th July 1943

No. 11-SC (9)/43.—In exercise of the powers conferred by clause 7 of the Gur Control Order, 1943, the Gur Controller for India hereby notifies that no Gur shall on or after the 1st August 1943 be offered for transport by railway by a consignor or accepted by a Railway servant for transport from any Railway Station not within the U. P. and N.-W. F. P. to any place outside the province within which such station is situated except under a permit issued by the Gur Controller for India.

N. C. MEHTA, Gur Controller.

No de-Control of Sugar Prices : Government's Decision

The Indian Sugar Mills' Association forwarded a resolution adopted at the 10th Annual Meeting held at Cawnpore on the 25th October 1942 to the Government of India urging that the Government should remove control on the sugar industry. The Department of Food of the Government of India replied on 18th December 1942, stating that they themselves were fully aware of the difficulty of administering a system of price control in the special circumstances of this country and also of the drawbacks in the present system of sugar control. The Government of India considered, however, that the solution of the problem did not lie in withdrawing the control as suggested by the Association but in trying to remove the defects so as to make the control progressively more effective.

The prices of sugar as fixed by the Sugar Controller under this order for the season 1943-44 has been given in an earlier table. (*Vide* Table No. 39.)

Sugar (Temporary Excise Duty) Ordinance, 1943

For the reasons leading to the imposition of the temporary excise duty in November 1943, a reference is invited to the body of the Annual. The Government expect to collect Rs. 40,00,000 as a result of the imposition of the temporary excise duty. Text of the Ordinance is given below :—

SUGAR (TEMPORARY EXCISE DUTY) ORDINANCE, 1943

The following is the text of the Sugar (Temporary Excise Duty) Ordinance, 1943, published in the *Gazette of India Extraordinary*, dated the 10th November 1943 :—

ORDINANCE No. XLI of 1943.

AN

ORDINANCE

to impose a temporary duty of excise on certain sugar produced in British India.

WHEREAS an emergency has arisen which makes it necessary to impose a temporary duty of excise on certain sugar produced in British India ;

Now, THEREFORE, in exercise of the powers conferred by Section 72 of the Government of India Act, as set out in the Ninth Schedule to the Government of India Act, 1935 (26 Geo. 5, c. 2), the Governor-General is pleased to make and promulgate the following Ordinance :—

1. *Short title extent and commencement.*—(1) This Ordinance may be called the Sugar (Temporary Excise Duty) Ordinance, 1943.

(2) It extends to the whole of British India.

(3) It shall come into force at once.

2. *Definitions.*—In this Ordinance, unless there is anything repugnant in the subject or context,—

(a) “Assessing Officer” and “Circle Officer” mean, respectively, any officer appointed by the Provincial Government or by the Collector of Central Excises and Salt Revenue having jurisdiction in the area to exercise the powers of an Assessing Officer or a Circle Officer under this Ordinance ;

(b) “Assistant Collector” means an Assistant Collector of Central Excises and Salt Revenue and includes any officer specially authorized by the Central Board of Revenue or by the Provincial Government to exercise in any specified area all

or any of the powers of the Assistant Collector for the purposes of this Ordinance ;

- (c) "factory" means any premises wherein or within the precincts of which twenty or more workers are working or were working on any day of the twelve months preceding the date of the commencement of this Ordinance ;
- (d) "sugar" means any form of sugar containing more than ninety per cent of sucrose ;
- (e) "wholesale dealer" means any person who buys or sells sugar wholesale and includes a broker or commission agent who in addition to making contracts for the sale or purchase of sugar for others, stocks sugar belonging to others as an agent for the purpose of sale.

3. *Imposition of duty.*—A duty of excise at the rate of thirteen annas per standard maund shall be levied, and shall be payable to the Central Government, on all sugar produced in any factory in British India before the commencement of this Ordinance and owned or possessed at the commencement of this Ordinance by an owner of a factory or by a wholesale dealer.

4. *Disclosure of stocks.*—Every person owning or possessing sugar liable to the duty imposed by Section 3 shall, within seven days of the date of the commencement of this Ordinance, submit to the Assessing Officer having jurisdiction in the area a full account in writing, containing the particulars entered in Form A set out in the Schedule and verified in the manner indicated in that form of all sugar in his ownership or possession on the date of the commencement of this Ordinance, and shall specify therein the place where such sugar is stored and, if it is in transit from one place to another, the date, place and manner of despatch, its destination, the name and address of the consignee and the date on which it is expected to reach such destination.

5. *Assessment and payment of duty.*—(1) On receipt of the return referred to in Section 4 and after such further enquiry, if any, as he may think necessary, the Assessing Officer shall assess the duty payable on the sugar. If no return is submitted within the period specified in Section 4, the Circle Officer, or, if the sum assessed exceeds two hundred rupees, the Assistant Controller may make a summary assessment of the duty on such information as may be available to him.

(2) The amount so assessed shall be communicated in writing to the person owning or possessing the sugar with the particulars contained in Form B set out in the Schedule ; and that person shall, not

later than the 1st day of December 1943, unless he obtains permission under sub-section (3) to pay by instalments, pay it into the local Treasury or any other Treasury approved by the Assessing Officer.

(3) Such payment may, with the permission of the Assessing Officer obtained when the assessment is communicated under sub-section (2), be made in instalments not more than three in number, of which, when three instalments are allowed, the first shall be not less than one-third of the total amount due and shall be paid not later than the 1st day of December 1943, and the second shall be not less than one-half the balance due and shall be paid not later than the 1st day of January 1944, and the third shall be paid not later than the 1st day of February 1944, and, when two instalments are allowed, the first shall be not less than half the total amount due and shall be paid not later than the 1st day of December 1943, and the second shall be paid not later than the 1st day of January 1944.

6. *Recovery of duty with penalty.*—If the duty payable under Section 3 is not paid in full before the 2nd day of February 1944, or if any instalment is not paid in full by the date fixed by Section 5, the Circle Officer, or, if the deficit exceeds one hundred rupees, the Assistant Collector, may, in lieu of the amount left unpaid, recover any sum not exceeding double the amount left unpaid.

7. *Mode of recovery of duty.*—When default is made in the payment of any duty payable under Section 3, or when any sum is to be recovered under Section 6, the Assistant Collector may prepare a certificate signed by him specifying the amount due from the person liable to pay the same and send it to the Collector of the district in which such person resides or conducts his business and the said Collector, on receipt of such certificate, shall proceed to recover from the said person the amount specified therein as if it were an arrear of land revenue.

8. *Power to obtain information.*—An Assessing Officer or any person authorized in writing in this behalf by an Assistant Collector may at all reasonable times enter any place in which he has reason to believe that sugar liable to the duty imposed by Section 3 is kept, and may inspect such place and may require any person found therein who is for the time being in charge thereof to produce to him and allow him to examine such accounts, books or other documents as may relate to the business carried on in such place and to furnish to him such information as he may require for the purpose of ascertaining whether or what sugar liable to duty is kept in such place or is elsewhere in the ownership or possession of the owner of such place.

9. *Disposal of sugar liable to duty.*—No person owning or possessing sugar liable to the duty imposed by Section 3 shall sell or otherwise dispose of any sugar until the order of assessment has been communicated to him and until he holds a release order signed by the officer making the assessment :

Provided that nothing in this section shall apply to sugar sold retail in quantities not exceeding two pounds to one person at one time.

10. *Offences and penalties.*—Whoever commits any of the following offences, namely :—

- (a) fails to supply the information required by Section 4 or under Section 8 or (unless with a reasonable belief, the burden of proving which shall be upon him, that the information supplied by him is true) supplies false information ;
- (b) evades the payment of any duty payable by him under this Ordinance ;
- (c) obstructs any Assessing Officer or other authorized person in the exercise of his powers under Section 8 ;
- (d) contravenes the provisions of Section 9 ;
- (e) attempts to commit, or abets the commission of any of the offences mentioned in the foregoing clauses of this section,

shall, for every such offence, be punishable with imprisonment for a term which may extend to one year, or with fine, or with both, and where the offence is committed, attempted or abetted in respect of sugar liable to duty under Section 3 such fine may extend to five times the duty leviable on the sugar in respect of which the offence is committed, attempted or abetted.

11. *Power of Courts to order forfeiture.*—Any Court trying an offence under this Ordinance may order the forfeiture to His Majesty of any sugar in respect of which the Court is satisfied that an offence under this Ordinance has been committed, and may also order the forfeiture of any receptacles, packages or coverings in which such sugar is contained and the animals, vehicles, vessels or other conveyances used in carrying the sugar :

Provided that in ordering forfeiture under this section, the Court shall give the owner of the goods an option to pay in lieu of forfeiture such fine as the Court thinks fit.

12. *Appeals.*—(1) Any person aggrieved by any decision or order passed under Section 5 or Section 6 may, within one month from the date of such decision or order, appeal therefrom to the Collector of

Central Excises and Salt Revenue having jurisdiction in the area ; but the filing of such an appeal shall not, pending the appeal, absolve him from the obligation to pay the sum or sums specified in such decision or order.

(2) The Collector of Central Excises and Salt Revenue may thereupon make such further inquiry and pass such order as he thinks fit, confirming, altering or annulling the decision or order appealed against , and if the money deposited by the person making the appeal exceeds the amount directed by the Collector of Central Excises and Salt Revenue to be paid, the money deposited in excess of such amount shall be refunded.

(3) Every order passed in appeal under this Section shall, subject to the power of revision conferred by Section 13, be final.

13. *Revision by the Central Board of Revenue.*—The Central Board of Revenue may, on the application of any aggrieved person, reverse or modify any decision or order made under Sections 5, 6, or 12.

14. *Rebate on export.*—The Central Government may, by notification in the official *Gazette*, make rules to provide for the grant of a rebate of the duty paid under this Ordinance on sugar which is afterwards exported to any country outside India.

15. *Bar of legal proceedings.*—No suit, prosecution or other legal proceedings shall lie against any person for anything done or in good faith intended to be done under this Ordinance.

16. *Saving of other laws.*—The provisions of this Ordinance shall be in addition to and not in derogation of any other law for the time being in force in relation to the levy of central duties of excise on sugar.

Prohibition of Manufacture of Bura and Candy Sugar and Refined Sugar

Under his Order No 11-S.C.(3)/43, dated 26th January 1943, the Sugar Controller for India prohibited the manufacture of Bura and Sugar Candy without a special permit from him.

The manufacture of Refined Sugar was also thus prohibited by his order dated 31st July 1943, without a special permit from him.

Fuel Alcohol Order, 1943

The Fuel Alcohol Order, 1943, was published in the *Gazette of India* on the 20th February 1943. The Order makes provision for the

use of Power Alcohol as motor fuel on an all-India basis and is applicable without prejudice to the provisions of the United Provinces Power Alcohol Act, Bihar Power Alcohol Act, and the Bombay Power Alcohol and Petroleum Act.

Factories (Control of Dismantling) Order, 1943

The above Ordinance was published in the *Gazette of India* of the 15th September 1943. Section 3 of the Ordinance provides :—

- (a) that no person shall, without the written permission of the Central Government, or of an officer authorized in this behalf by the Central Government, dismantle any factory or remove from a factory any spare parts kept for maintaining the machinery of the factory in order ;
- (b) that whoever contravenes any of the provisions of Section 3 of the Ordinance shall be punished with imprisonment which may extend to two years or with fine or with both ;
- (c) that any person wishing to move a complete factory or part of the machinery in a factory to a new locality must apply to the Central Government in the Department of Industries and Civil Supplies for permission to do so.

U. P. Gur Control Order, 1943

In August, 1943, the U. P. Gur Control Order, 1943, was published under Civil Supply Department Notification of the 14th August 1943. Section 9 of the Order provides that with effect from the date of publication of the Order no person shall export *gur* outside the United Provinces or enter into any contract to export *gur* outside the United Provinces, and Section 10 gives the Controller power to prohibit transport of *gur* from the area to any places in the region.

United Provinces Gur (Movement) Control Order, 1943

Under this Order, which was published in the United Provinces Government *Gazette* of 13th November 1943, no person is allowed to carry or cause to be carried, or offer for carriage by rail any *gur* from any place within the region to any place outside the region except under the orders of the Provincial Government, etc.

United Provinces Gur Price Control Order, 1943

By the above Order, which came into force on the 21st August 1943, every wholesale dealer in *gur*, whether licensed or not, is compelled to sell to the Controller such quantity of *gur* as the Controller

may demand of him at a price which in the Controller's opinion, is on a parity with the notified price of sugarcane, etc.

Indian Central Sugarcane Committee

The Government of India's Draft Resolution intimating their proposal to set up this Committee is given below :—

“The responsibility for guiding sugarcane research in India and advising the Central and Provincial Governments on matters relating to the improvement and development of the industry connected with sugarcane and its products has hitherto rested mainly with a Sugar Committee appointed by the Imperial Council of Agricultural Research. The proceeds of the Sugar Excise Fund, to which funds are credited at the rate of one anna per cwt. of white sugar produced in British India, out of the excise duty levied thereon are, however, available only in part for co-ordinated schemes of sugarcane research and cognate activities; the rest of the Fund is administered directly by the Government of India, partly for maintaining the Imperial Institute of Sugar Technology and partly for giving grants to Provincial Governments for expenditure on schemes ancillary to schemes sanctioned by the Imperial Council of Agricultural Research. It is becoming increasingly obvious that all this work is inter-related and can best be tackled by one central organization.

2. “Taking into account the expansion of its own work and envisaging considerable further developments in the near future and the need for post-war re-adjustments, the Sugar Committee of the Imperial Council of Agricultural Research in October 1941, recommended that a Central Sugar Committee should now be constituted on the lines of the Indian Central Cotton Committee and with somewhat similar powers and functions. This resolution was endorsed by the Governing Body of the Imperial Council of Agricultural Research in July 1942. The Government of India agreeing with the Sugar Committee and the Imperial Council of Agricultural Research, have accepted this recommendation in principle and have decided to set up a Central Sugarcane Committee which will be a body corporate registered as a Society under the Registration of Societies Act (XXI of 1860) with headquarters at Delhi. For the duration of the war, however, the Government of India may require the Committee to have its headquarters at a place other than Delhi.

3. *Functions.*—The functions of the Indian Central Sugarcane Committee will be to undertake the improvement and development of the growing, marketing and manufacture of sugarcane and its products

in India and of all matters incidental thereto. This includes items such as agricultural, technological and economic research on sugarcane, *gur*, sugar and their bye-products, the improvement of crop forecasting, and statistics, the production, distribution and testing of improved varieties, the adoption of improved cultural practices, enquiries and recommendations relating to banking and transport facilities and transport routes, the maintenance of an Institute of Sugar Technology and other similar matters. The control over the Institute of Sugar Technology will vest in the Committee along the lines indicated later. The Committee will also advise the Central and Provincial Governments concerned on any points which may be referred to it by them, provided the subject-matter of the reference falls within the prescribed functions of the Committee.

4. "It is desirable that the growers, the manufacturers and the traders should be fairly represented on the Committee. Subject to a reserve power of nomination by the Governor-General-in-Council after consultation with the Committee so as to permit of appointment to the Committee to meet requirements that may vary from time to time, the Committee will be constituted as follows :—

(1) The Vice-Chairman, Imperial Council of Agricultural Research, who shall be *ex-officio* President of the Committee.

(2) The Agricultural Commissioner with the Government of India.

(3) The Director, Imperial Agricultural Research Institute.

(4) The Director, Imperial Institute of Sugar Technology.

(5) The Agricultural Marketing Adviser to the Government of India.

(6) The Imperial Sugarcane Expert.

(7) - (13) The Directors of Agriculture, Madras, Bombay, Bengal, United Provinces, Punjab, Bihar and Mysore.

(14) - (15) The Cane Commissioners, United Provinces and Bihar.

(16) - (24) Nine representatives nominated by the Indian Sugar Mills Association, of whom at least two shall be representatives of the Indian Sugar Producers' Association, one representative of the Deccan Sugar Mills, one of South India Sugar Factories and one of the Bengal Sugar Factories.

(25) One representative of Sugar Factory-owners nominated by the Governor-General-in-Council.

(26) - (29) Four representatives of the *Gur* and Khandsari Industry nominated by the Governor-General-in-Council.

(30) - (37) Eight non-officials representing agricultural interests, one nominated by the Government of Madras, one by the Government of Bengal, two by the Government of the United Provinces, one by the Government of the Punjab, one by the Government of Bihar and two by the Governor-General-in-Council to represent other areas.

(38) - (40) Three representatives of sugar trade—one nominated by the Bombay Sugar Merchants' Association, one by the Cawnpore Sugar Merchants' Association and one by the Indian Sugar Syndicate.

(41) - (43) Three representatives nominated by the Governor-General-in-Council to represent the consumers.

(44) One representative of Sugar Technologists nominated by the Governor-General-in-Council.

The tenure of appointment of the members of the Committee other than those who are appointed by reason of the office or appointment they hold will be three years with effect from the 1st April of the year in which they are appointed or such lesser period as may be specified in the notification.

It is expected that Committee will start functioning early in 1945.

Pending formation of the Indian Central Sugarcane Committee, the Governing Body of the Council extended the term of the Sugar Committee with its existing personnel up to the 30th September 1944.

U.P. Sugarcane Advisory Committees

In the year 1943 three Sugarcane Advisory Committees were set up in the United Provinces, for a period of 3 years commencing from 1943, one for the Western Tract, one for the Central Tract and one for the Eastern Tract. The Director of Agriculture, United Provinces, will be the Chairman of each of these Committees and will convene the annual meetings preferably in the month of November to discuss plans of sowing of sugarcane for the following season.

Advisory Committees under the Bihar Sugar Factories Control Act, 1937

The Government of Bihar announced the appointment of the following Advisory Committees :—

- (1) Advisory Committee for the Patna Division.
- (2) Advisory Committee for the District of Saran.
- (3) Advisory Committee for the District of Champaran.
- (4) Advisory Committee for the District of Darbhanga-cum-Monghyr.

The Collector of the District is *ex-officio* Chairman of these Committees.

Bihar Sugarcane Varieties Advisory Committee

The above Committee was appointed in May 1943. The last (5th) meeting of this Committee was held on the 13th December 1943, when various questions of considerable importance to the industry were discussed. It should be noted that under the Bihar Sugar Factories Control Amendment Act 1943, statutory recognition has been given to the Sugarcane Varieties Advisory Committee and Government have been empowered to declare that particular varieties of planting cane or ratooning cane are unsuitable for use by factories in specified areas.

Sugar Industry's Views on Current Topics, 1943

We give below text of the important Resolutions passed at the Annual General Meeting of the Indian Sugar Mills' Association held at New Delhi on 16th October 1943 :—

I. Cane Prices

This Association regrets to note that the production of sugar in the country during the last season was not satisfactory on account of factors such as a fair cane price having not been fixed early enough to prevent diversion of large quantities of cane to *gur* manufacture. In order to satisfy fully the sugar requirements of the country, the Association urges the necessity of Government adopting all measures to maximise sugar production. An important measure to that end in the considered view of the Association is fixation of cane prices at a level which would ensure to the cultivator a return comparable to that obtained by him from other food crops. Such a fair cane price is essential not only to prevent diversion of cane to *gur* manufacture in the coming season but also to induce the cultivator to maintain the existing acreage under cane for the season 1944-45, thus bringing about maximum sugar production, as desired and ensuring for the industry its absolutely necessary raw material for the next year. The Association apprehends that in the absence of fair cane price the cultivation of cane for 1944-45 season is bound to be reduced so as to place the sugar industry of the country in an extremely precarious position and deprive the consumer of an essential article of food. The Association further believes that a corresponding increase in sugar prices is essential when the cane prices are increased.

II. *Distribution of Sugar*

This Association views with concern the failure on the part of the several Provincial Governments to effect proper distribution of sugar allocated by the Sugar Controller for India to them for consumption within their areas. This Association learns with regret that notwithstanding regular despatches of sugar by the Sugar Controller for India the consumers in various Provinces have been placed to considerable hardship on account of unavailability of sugar and the high prices to be paid for whatever small quantities are available. This Association is of the considered view that these Provincial Governments have been unable to undertake efficient distribution of sugar mainly on account of their distrust of the normal agencies of distribution and their consequently trying to set up new Agencies and Organizations which without previous experience of the sugar trade and the necessary financial resources have completely failed to handle the sugar despatched to them. This Association firmly believes that unless the sugar industry is taken into confidence as regards distribution of sugar in the country, it would be extremely difficult to have efficient and regular distribution of sugar in the country. With a view to implementing this recommendation the Association suggests for the present period of emergency

1. that the Government of India should immediately appoint a Central Board, including representatives of the manufacturers to be nominated by the Indian Sugar Mills Association and the nominees of the Central and the various Provincial Governments, who should be invested with powers to fix the prices of sugar, allocate quotas of sugar for distribution to the provinces, arrange the necessary transport facilities, etc.
2. that Local Advisory Boards to function under the Central Board should also be appointed for each province to work out detailed plans of distribution in each district and issue the necessary licences to such of the sugar dealers who have been in the trade and had ample experience thereof in the past. Such Local Boards will be responsible for efficient distribution of sugar in their areas.
3. that depots or retail shops for sale of sugar direct to the consumers ought to be permitted to be opened by the factories and be included in the scheme for distribution of sugar within the area, to be devised by these Local Boards.

III. Central Sugar Committee

This Association recommends to the Government of India that in order to evolve well-planned production of cane and sugar on improved scientific lines, Government should establish at an early date a Central Sugar Committee on the lines of the Indian Central Cotton Committee by an Act of Legislature with due representation given on the same to the Sugar Industry. The Central Sugar Committee should (1) undertake research work and conduct enquiries into the existing methods of cane cultivation with a view to suggesting improvements as regards yield of cane per acre and quality thereof including testing and distribution of improved varieties of cane, improved methods of planting, improved methods of manuring, and irrigation and measures to check cane pests and diseases; (2) undertake technological and economic research with the object of suggesting improvements in the manufacture of sugar, with a view to increase the output and improve the quality; (3) undertake improvement of crop forecasting and the maintenance of statistics vital to the progress of the Industry, and (4) to deal with the post-war problems concerning the Sugar Industry.

IV. Cane Cess

This Association regrets to note that in spite of the fact that cane cess was levied by the Provincial Governments of U.P. and Bihar with a view to improve road communications in factory areas and development of cane, etc. and despite repeated assurances on behalf of the Governments of U.P. and Bihar to this effect, the proceeds of this cane cess are not being utilized for development of cane and road communications in factory areas. The Association, therefore, urges the Governments of U.P. and Bihar either to apply the proceeds of the cess to the purpose for which it was levied or forthwith abolish the same.

This Association further believes that it is unjustifiable to continue to levy the additional cess on cane imposed for repavment of Central Sugar Excise Loan in view of the fact that the total collections of this cess in U.P. and Bihar in the last season have already appreciably exceeded the liability of the provincial Governments to the Central Government in this behalf.*

V. Power Alcohol

This Association notes with satisfaction that several licenses for establishing power alcohol plants in the country have been granted and a few power alcohol manufacturing plants have already started working in the country. In order, however, that a power alcohol

* In spite of this, cane cess was levied in U.P. and Bihar at Re 0-1-0 per maund in 1943-44 season.

manufacturing industry may be firmly established in the country, this Association requests the Government of India to implement the recommendations of the Power Alcohol Conference held by them some time ago and to give the industry all necessary assistance.

VI. Control over Molasses

While the Association appreciates the necessity of control measures over molasses during the present period of emergency for the production of power alcohol and rectified spirit urgently needed for war purposes, they urge that the control should apply only to the quality of molasses required by the distilleries.

**Two Pages elsewhere give a picture of
World Sugar
Please see those—they are interesting.**

M. P. GANDHI,
Editor.



THE INDIAN SUGAR INDUSTRY— (1943 ANNUAL)

EDITOR : M. P. GANDHI

(A Review of the Sugar Industry in India during the 1942-43 season and comments on the 1943-44 season).

Introductory

The 1942-43 season may well be characterized as one in which the Indian Sugar Industry was induced to make an all-out effort to produce the maximum quantity of sugar. During this period the industry also enjoyed conditions similar to those in the early period of the establishment of the Industry.

The second year of control over the industry during the war-period can also be said to have achieved a fair measure of success. The recognition of mistakes in the operation of control measures since 1941, rectification thereof in the light of experience from time to time, and the co-operation afforded by the members of the industry in the matter of production were responsible for an increase in production of factory sugar, amounting to 10,70,700 tons during the 1942-43 season as compared with 7,78,100 tons in the preceding season. The internal consumption and military demand for sugar also increased during the year which incidentally witnessed for the first time rationing of supplies of sugar in certain urban centres.

We remarked in the last year's *Annual* that the season 1941-42 marked the beginning of a new era, and that it marked the end of a chequered career. The history of the industry since 1936 has been one of the fluctuating fortunes for the industry, and sugar producers experienced bad times due to some reason or other. The imposition of the Excise Duty and frequent increases therein, control of the affairs of the industry in the Provinces of the U. P. and Bihar and the growth of the industry outside these two Provinces, vagaries of the sugarcane crop, introduction of the sugar cess, compulsory restriction of output and capacity, etc. contributed to the ills of the industry during the 5 years

ending 1940-41. Within such a short period of existence, the sugar industry was the first to be subjected to an extensive and rigid form of control and as is well known, in 1940-41 and 1941-42, production had to be curtailed and regulated in order to minimize the large carry-over of stocks from the 1939-40 season.

Industry affected by War, at a late Stage

The sugar industry, like the coal industry, was not in any way affected by the war till a very late stage. Till the fall of the Netherlands East Indies, the Phillippines and other sugar producing areas in the Far East, which accounted for an annual export of two million tons, the Indian sugar producers were not in any way touched. With regulated production and rising costs, however, the state of affairs in the industry worsened and there was a colossal waste of productive capacity and of economic wealth. The only service that the industry did towards the war effort during this period was the utilization of the capacity of some factories for dehydration of vegetables and that, too, for only a small period.

With the entry of Japan into the war on the side of the Axis and the loss of sugar producing countries in the Far East, things, however, assumed a different complexion. Since 1942-43, it has become a question of maximization of sugar production and taking advantage of the new conditions to capture new markets and seek outlets for our surplus production in the markets which till now were a close preserve of the Java and the Phillippines sugar producers.

Sugar Industry's Controlled Profits

So far, however, the new conditions have not been helpful to the industry for the purpose of export of large quantities of sugar, nor has the industry been able to enjoy such prosperous conditions as the Indian Cotton Textile Industry. The Indian Cotton Textile Industry was directly affected by the outbreak of the Japanese War. The elimination of a large competitor, intensification of the war effort and the large demand from neighbouring countries resulted in a large increase in the production of cloth and yarn in the country. With Indian Cotton freely available, it was possible to achieve greater production with intensified working of the machinery. Except for the import of foreign cotton for the manufacture of finer qualities of textiles, the cotton mills were never handicapped for want of the principal raw material. There was also no question of control of prices of raw material, viz. cotton, till a very late stage, which, too, proved to be beneficial to the manufacturing interests. The sugar industry, on the other hand, has had to

undergo hardships of official "red-tapism" right from the beginning of the war period, and there has never been an approach to the prosperous conditions enjoyed by the Indian Cotton Textile Industry or other major industries, due to the outbreak of the war.

It was in December, 1941, that Japan made the attack on Pearl Harbour. The first crippling blow staggered the United Nations, but before they could recover from the effect of the first blow, the Japanese had overrun many countries. There was considerable panic and the initial effect of the Japanese victories was rather bearish on the Indian markets and prices declined everywhere. It was late in 1942 that there was an intensification of the Indian war effort and the resources of the country were fully harnessed. It was for this reason that we remarked on earlier occasions that the fall of France and the entry of Japan into the war marked a turning point in the industrial history of this country in the war period and that India benefited to a great extent through allied war expenditure. If other developments are, however, taken into consideration, one may not agree that the balance of advantage is in our favour. But our only purpose here is to point out that, like the other industries, the sugar industry has not been allowed to take advantage of improved war conditions and on the ground of having been accorded a liberal measure of protection, the Indian sugar producer has been squeezed hard.

Comparison with Cotton Textile Industry

The improvement in the conditions in the Indian Cotton Textile Industry commenced with the arrival of the Eastern Group Council in this country, late in 1940. The control of the affairs of the cotton industry did not materialize till June, 1943. During this period production had increased by almost 50 per cent above 4,500 million yards per annum, and prices for various varieties of cloth had gone up by as much as 400 per cent. The improvement in the prices of raw cotton was at no time proportionate to the increase in the prices of manufactured goods, with the result that the Indian Cotton Textile manufacturers enjoyed a prosperity such as was never experienced before. The return of prosperity to the Cotton Textile Industry was a fitting recognition of the difficult times experienced by the industry in the thirties. The uncontrolled rate of exports, the large war orders and the large internal consumption caused an uninterrupted rise in prices. There was a cloth famine and the consumer had to be protected against an undue increase in the cost of living. While the provocation came from the industry and the connected interests, the Government were largely

to blame as there was no forethought on their part, and the authorities were contended, having managed to get their requirements of cloth on satisfactory terms from the industry. The powerful opposition from the vested interests and the difficulties of effecting control on the affairs of such a large industry were mostly responsible for the late introduction of control, though it should be said that, when it came about, it was effective, and the co-operation between the members of the Government and the industry was real and genuine. The deflated level of prices of cotton piecegoods and yarn is still much above pre-war prices and admits of considerable reduction, but it must be stated that the prices prior to the introduction of control measures in the Cotton Textile Industry were so appallingly high that the consumer should be grateful for whatever small mercies that have been given since the assumption of control.*

It would perhaps appear from the foregoing that the control of the affairs of the Cotton Textile Industry leaves everything to be desired and that the consumer's interests have not been properly safeguarded. Our intention here, however, is not to criticize the method of control. The Cotton Industry had the advantage of the experience of administration of the earlier control measures of other commodities, and consequently, it was possible to avoid several pitfalls. What is more, the large part played by the industry in the country's war effort, entitles it to a greater measure of consideration. The only blame that could possibly be suggested is that the situation had not been anticipated earlier by the Government and that inflationary forces were allowed their full play for a long period.

Effects of War on Sugar Prices

To revert to sugar. There has been a sudden transformation, however, in the fortunes of the Indian Sugar Industry. It was in December, 1941, that the Japanese entered the war. The immediate repercussion on Indian markets, as pointed out above, was bearish, and in the first four months of 1942 the outlook was considered bleak. After April 1942, markets slowly recovered and the Government were rather too quick to see that the sugar prices should be controlled. An order was passed controlling prices as well as distribution of sugar, on the 14th April, 1942.†

* For a detailed account of the vicissitudes of the industry, we would refer the reader to the Indian Cotton Textile Industry—1943 Annual—by M. P. Gandhi : Publishers—Gandhi & Co., Jan Mansions, Sir Phirozeshah Mehta Road, Fort, Bombay.

† For the text of the Sugar Control Order, 1942, *vide* the Indian Sugar Industry Annual 1942, pp. x to xvii, and for the text of the Sugar and Sugar Products Control Order, 1943, which supersedes the Sugar Control Order, 1942 *vide* the earlier portion of this Annual entitled "Sugar Industry at a Glance".

It was felt that owing to Java sugar being out of the market, there would be an undue rise in prices and that with the greater demand for Indian sugar, complete control was necessary. A Controller of Sugar was immediately appointed. Initial mistakes were doubtless made and there was a lot of confusion also. Prices had been fixed low and had to be revised immediately, as they were considered inadequate in relation to the minimum price of sugarcane fixed in the Provinces of the U. P. and Bihar.

Restricted Production in 1940-41 and 1941-42

The difficulty in the earlier stages of control was mainly of distribution. The industry had large stocks of sugar and these had to be only conserved and satisfactorily distributed. With the lack of co-operation from the members of the industry and the confusion over allotment of wagons and provision of transport facilities, there was scarcity of sugar in many centres and growth of black markets was encouraged.

Central Control over Industry in April, 1942

In the season 1941-42, which proved to be the second year of restricted production of sugar in the U. P. and Bihar, everyone had the feeling that the sugar producer had been unduly penalized and that Governmental authority had been unduly severe in determining the margin of profit for the sugar industry. It is still the grievance of the industry that it was not consulted properly, prior to the introduction of control in April, 1942 and that the suggestions made by the manufacturing interests in the matter of distribution were completely disregarded. Existing channels of trade were not utilized and the delay in despatches and accumulation of stocks in factories' godowns created considerable confusion. The system of zoning and a proper regulation of despatches resulted in improved distribution of sugar towards the close of 1943.

The position in this regard was more satisfactory during the second year of Control, and it must be said to the credit of the Sugar Controller for India that despatches to the various areas were made according to schedule and that nearly 75 per cent of the season's sugar had been despatched by the end of November, 1943. It is indeed a great achievement that transport space was found for as much as 7,00,000 tons of sugar when the capacity of the railways was greatly strained. The existence of black markets was curtailed, although black markets did prevail at some places due to the fact that the margin of profit allowed by the Government to the traders was very small. Even at the present

moment there is a feeling that the distribution end has not been properly tackled and that the mere despatch of sugar from the producing centres does not solve the problem. The existence of black markets in Bengal in spite of large movements of sugar and the satisfactory stock position is an instance of the inefficient handling of the problem of distribution by Provincial Governments and the consequence of the neglect of the ordinary trade interests. The licensing of new dealers and appointment of merchants with dubious financial standing have resulted in delayed deliveries and delayed payments to factories. The industry is still of the opinion that the producers themselves should be given a greater part in the work of distribution and that the services of the Indian Sugar Syndicate, which has functioned successfully since its establishment in 1937, should be utilized for this purpose. We will revert to the working of control measures and the new developments in great detail at a later stage.

We have so far been discussing the effects of control on the sugar industry and pointed out that the authorities could have been more liberal in their outlook and sought greater co-operation from the industry. It would be relevant here to refer to the other aspects of control.

Present Aim of Control to Maximize Production

It was said at first that the primary intention of control of the affairs of the sugar industry was one of fixation of prices of sugar and its distribution. It has recently become, however, one of maximization of production. There has been such a great increase in the internal consumption and the demand on account of the Defence Services has been so great that there is need for all the sugar that the country can produce. In spite of the fact that this country is no longer a signatory to the International Sugar Agreement and that sugar exports by sea are freely allowed, it has not been possible to effect any large increase in exports. In fact a limit was placed to the quantity of exports, viz. 15,000 tons for the year 1943, but it is not known whether any export was made or this limit observed.

The production of sugar in 1940-41 in the Provinces of the U. P. and Bihar was restricted by the allotment of crushing quotas to factories by the Provincial Governments. In the 1941-42 season there was not a considerable fall in production, although later in the season, factories were allowed an unlimited crush, and ryots were encouraged to offer cane to the factories on the basis of a system of deferred bonuses. The

increase in production of sugar, however, could not be large as the sugarcane crop had been sown in expectation of a lower output. In the 1942-43 season, however, far better conditions were obtainable and there was an increase in the total sugar production from factories from 7,78,000 tons in 1941-42 to 10,70,700 tons in 1942-43. (Incidentally, the production of factory sugar during 1943-44 will exceed 12,60,000 tons). In 1942-43, the industry was asked to produce the maximum quantity of sugar, but the drive for maximum production fell short of expectation. The output in the Provinces of the U. P. and Bihar could have been easily more but for the delayed announcement (in January, 1943) of the increase in the minimum prices of sugarcane from Re. 0-8-0 to Re. 0-10-0 per maund.

Minimum Price of Cane Fixed at Re. 0-8-0 in 1942-43

In the beginning of the 1942-43 season the minimum price was fixed at 8 annas per maund. There was no increase in ex-factory price of sugar as it was pointed out that the producers would be able to effect a reduction in costs owing to an increase in output. The decision to fix the minimum price of 8 annas per maund by the Governments of U. P. and Bihar was much below the figure suggested by the Indian Sugar Syndicate and other producers in view of the higher prices for gur and greater return from other crops. As the cultivator had to be given every inducement to grow sugarcane and deliver it to the factories, a higher price was suggested by factory-owners also.

Increase in Cane Price to Re. 0-10-0 per Maund

The Governments did not listen to the advice of the industry at first. But when it was found later that there was a large diversion of crop for the manufacture of gur, and that it was not possible to achieve a substantial increase in the sugar output, in spite of the restriction placed on export of gur, and banning of futures and options in gur, it was decided to increase the minimum price of sugarcane from 8 annas to 10 annas per maund as from the 1st January 1943. At the same time the fixed price of sugar was increased by Rs. 2-5-0 per maund. The increase in the minimum price for sugarcane and the ex-factory price for sugar were considered satisfactory as the ryot was offered a good increase in the price for his crop and the producers were compensated adequately for the increase in production costs. The delay in the announcement of the increase in cane prices, however, had resulted in a considerable diversion of the crop for production of gur and thus factories could not continue production for as long a time as they

desired. The expectations of an average crushing season of 120 days did not materialize. Production of factory sugar for the 1942-43 season was 10,70,000 tons as compared with the previous season's production of 7,78,000 tons. The output of the 1941-42 season, coupled with the production of Khandsari sugar and sugar made from Gur, amounted to 8,91,900 tons. This was barely sufficient for the country's civilian requirements (which had increased), the large demand of the Defence Forces, as also of the United Nations Forces in the Near and Middle East.

Gur Control Instituted in July, 1942

The 1942-43 season is important as marking the introduction of Gur control in pursuance of the policy of maximization of sugar production without any large increase in production costs. At the time when the minimum prices of sugarcane were first announced by the Provincial Governments of the U. P. and Bihar in November 1942, it was stated that with the drive for discouraging production of Gur there would not be any difficulty for factories to get their requirements of sugarcane at 8 annas per maund. Forward trading in Gur was suspended and restrictions were placed on the movement of Gur from place to place. This resulted in a reduction in the prices of Gur, but the disparity between Gur and sugar prices was such as would still encourage the manufacture of Gur.

Eventually it was decided to pass the Gur Control Order and the Sugar Controller for India was also appointed as Gur Controller. Movement of Gur was completely controlled and Government had the monopoly of movement and purchased the surplus Gur at a given price which varied from Province to Province.

Increase in Sugar Price by Rs. 2-5-0 per Maund in January, 1943

As the arrangement for control of production of Gur prior to the passing of the Order did not prove effective, it was decided to increase the price of sugarcane as from the 1st January 1943 to 10 annas per maund and the price of sugar was increased by Rs. 2-5-0 per maund with effect from the same date. This decision of the Provincial Governments had the desired effect of diverting cane supplies to the factories and many units in the U. P. worked for a longer season. The mean duration of the cane crushing season in the U. P. was 112 days in 1942-43 as compared with 78 in 1941-42, while the mean duration in Bihar in 1942-43 was 96 days as compared with 54 days in 1941-42. In Bengal and the Punjab great difficulty was experienced by the mills and even

with the higher minimum price it had not been possible for them to get the requisite amount of cane.

In the light of the working of the 1942-43 season, there was naturally some anxiety on the part of both the Government and the industry to increase production further in 1943-44 and to concert measures in time for giving the necessary incentive to both producers and growers. The *Gur* Control Order was working fairly satisfactorily and it was felt that if adequate supplies of cane were available to factories, it would be possible to ensure a higher level of production. For the growth of cane, however, the cultivator had to be given the necessary encouragement, as with the higher prices of foodgrains and prevalence of famine conditions in several parts of the country it was necessary to ensure that the return from the sugarcane crop was sufficiently remunerative. The Government on their part had to fix such a price for the cane crop which was sufficient to ensure adequate supplies of cane to the factories and which, at the same time, did not affect adversely the progress of their "Grow More Food" campaign.

Fixation of Minimum Price of Cane at Re. 0-12-0 in 1943-44

The announcement of a minimum price of 12 annas per maund of cane by the U. P. and Bihar Governments for the season 1943-44 made in November 1943 (as against Re. 0-10-0 for 1942-43) was found to be greatly below the expectation of both the cane cultivators and the industry. The representatives of cane growers had asked for as much as Rs. 1-4-0 per maund, while the manufacturing interests had suggested that the minimum should be not less than 14 annas per maund of cane. The Provincial Governments, however, were of the opinion that the minimum price of 12 annas per maund would be sufficient encouragement to the ryots and that with the restricted scope for the production of *Gur*, factories would have no difficulty whatever in securing their supplies of cane. The manufacturer was feeling anxious not only for the current season's requirements of cane but also for the subsequent seasons because unless the cultivator of cane was properly paid he would have no incentive for planting the cane crop in preference to food crops which would give him a greater monetary return. The Government of India, however, in their desire to enforce deflationary measures, paid no heed to the opinion of the manufacturers and decided that the minimum price of cane should be fixed at 12 annas per maund and ordered that even out of this amount only 10 annas per maund was to be paid in cash by factories to the cultivators; the remaining 2 annas was to be paid to them in Defence Savings Stamps or Certificates which could be cashed only after the war was over. The

reason for increasing the minimum price of cane by only Re. 0-2-0 per maund to 12 annas per maund inspite of the higher demand of the cultivators and industry was said to be the anticipated decline in prices of foodgrains with the furtherance of the anti-inflationary drive and the operation of control measures of the Food Department, which wanted to avoid a rising spiral of prices of foodgrains and other produce.

There has certainly been a reduction in the prices of foodgrains in recent months, but it remains to be seen whether the authorities would be successful in bringing about a further sharp decline in prices so as to encourage the growth of cane in sufficient quantities in the next season.

Record Production in 1943-44

According to the second forecast for 1943-44, the area under cane crop shows an increase of 7 per cent over corresponding figures for the previous season and the crop is reported to be good on the whole. Factories have been working satisfactorily hitherto and there is no serious complaint regarding unavailability of cane supplies during the current (1943-44) season. It is estimated that the total output of sugar for the current (1943-44) season will be 9.6 lakhs tons for the Provinces of the U. P. and Bihar and 3 lakhs tons for the rest of the country. The output in respect of the factories in Bengal and the Punjab cannot be expected to increase appreciably on account of the food situation, while factories in the Indian States are expected to do very well. A production of 12.6 lakhs in 1943-44 tons of sugar will constitute a record in the history of the sugar industry in India. Even in 1939-40, when there was great over-production, the total output was only 12,41,700 tons. With the huge demand of the Defence Forces, and the export demand from several countries, even an output of 15 lakhs tons could be absorbed, if only the necessary shipping space could be found. The 1943-44 season would, therefore, prove to be momentous in the history of the industry for more than one reason.

Delayed Payment of Re. 0-2-0 in Defence Savings Stamps to Cultivators

This system of payment of Re. 0-2-0 per maund in National Savings Certificates has involved more work for the mills, and the ryots have not been very happy over it, as a bulk of them want ready cash. There have been numerous cases where the Mahajans are reported to have discounted these Defence Savings Stamps or National Savings Certificates at a heavy discount.

The system of payment of the increased price for sugarcane in the form of Defence Savings Stamps or National Savings Certificates is said

to be in furtherance of the Government's anti-inflationary drive. This will result in the immobilization of funds to the extent of 300 lakhs rupees, of course, not an inconsiderable sum.

Increase in Sugar Price of only 0-13-0 from 10th November, 1943 and increase of Cane Cess in U.P. and Bihar in 1943-44

Against an increase in the price of sugarcane by 2 annas per maund from the beginning of the 1943-44 season, the manufacturers secured an increase of only 13 annas per maund of sugar. The higher price was not applicable to old season sugar in stock and to the sugar manufactured prior to the announcement of the increase in price of sugarcane on the 9th November 1943. An additional temporary excise duty was levied by an Ordinance^{*} and this will very probably constitute a special fund for affording special relief to the industry at a later stage. According to the Budget estimates of 1944-45, Rs. 40 lakhs will be obtained from this temporary excise duty. The additional price of 13 annas per maund does not compensate the manufacturers fully for the increased cost of sugarcane and the higher cost of production. According to theoretical calculation, the increase in the price of sugar should have been at least of the order of Rs. 1-4-0 per maund, assuming roughly 10 maunds of cane for manufacture of one maund of sugar. The Government felt, however, that the increase of Rs. 2-5-0 in the price of sugar allowed to the manufacturer during the 1942-43 season was too liberal and that he could afford to bear a certain reduction in price without any serious effect on his earnings. We expect that as a result of this decision to increase the price of sugar by 13 annas only, when the price of cane in U.P. and Bihar was increased by 2 annas per maund, the balance sheets of a large number of sugar factories in U.P. and Bihar would be adversely affected as compared with the previous season. As far as the factories outside U.P. and Bihar are concerned, the increase in price by 0-13-0 per maund, will be a source of additional profit. What is more, the decision of the Governments of the U.P. and Bihar to increase the cess on cane to one anna per maund in 1943-44 came as a great surprise to the industry. It was confidently expected that the authorities would effect a reduction in the cess of 9 pies on cane to 3 pies per maund as the industry had fully repaid the rebate of excise duty of 150 lakhs granted in 1940-41 and for which the special cess of 6 pies per maund was levied. While the special cess was discontinued by both the U.P. and Bihar Governments, they increased the ordinary cess to 0-1-0 per maund of cane, and made an unnecessary addition to the cost of pro-

^{*}For the text of the Sugar (Temporary Excise Duty) Ordinance 1943, vide earlier portion of this Annual.

duction. As against an increase in the price of sugar by 13 annas per maund, the price of cane has really increased not by 2 annas per maund but by 2½ annas per maund in the U.P. and Bihar in 1943-44. This would mean a still smaller margin of profit and for the marginal producer the return on his capital would be ridiculously low and out of proportion to the high level of earnings enjoyed by other industries. The increase in the rate of the ordinary cess to 0-1-0 per maund from 10th November 1943, it is pointed out, is for the creation of a new fund for post-war rehabilitation. (*Vide* pp. 17-20 of the *Indian Sugar Industry at a Glance*, for further details of the cess.)

Prospects for 1944-45

As regards the prospects of the next season, i.e. 1944-45, much depends on the progress during the next few months. It is feared that much of the cane crop would be ratooned and that yield would be low in the following season. With the increased difficulties in obtaining stores and supplies of other raw material and with the necessity of paying still higher prices therefor, we feel that it is the duty of the Government to ensure that the quality of cane offered to the factories is as good as possible and that there is an uninterrupted supply of cane throughout the season. We are not sure at the present moment how remunerative the present cane prices are to the cultivator as compared with the earnings of other food crops like wheat, rice, etc. and it is difficult to know what the reactions of the cultivator are regarding plantation of the cane crop during the subsequent season. We feel, however, that it is the duty of the industrialists to give this matter their constant attention and to press the Government to take suitable action for giving a fair price to the ryots for supplies of sugarcane. This is necessary in order to ensure that cane in sufficient quantities is available throughout the season to ensure an output of sugar of not less than 13,00,000 tons at the very minimum, for the next and subsequent seasons. We expect the production of sugar in 1944-45 to be about 11,00,000 tons.

Rationing of Sugar in Urban Centres. No Necessity of Drastic Cut in Supplies

Another important development to which we would invite the attention of the Government and the Industry is that of rationing of sugar and its possible adverse effects on the total consumption of sugar. Rationing has been introduced with effect from April 1943, in almost all the important urban centres. The sugar ration, however, has been fixed at a particularly low level. If in a city like Calcutta

the urban consumer gets only an allotment of 2 lbs. per month (against a pre-war consumption of over 8 lbs. a month according to the Central Agricultural Marketing Report, published in 1943), it need not be pointed out that the total consumption of sugar will fall considerably. Take the case of Bombay City. The allotment of sugar in Bombay is 3 lbs. per head per month; in other words, 36 lbs. per year. According to the same authority the consumption of sugar in Bombay City in the previous years has been of the order of 65 lbs. per year. When the total production of sugar in the country is adequate, there appears to be no reason why sugar should be rationed at all, and if it is rationed in order to secure a fair and equitable distribution all over the country, there is little reason why it should be rationed so drastically. Even accepting the cut of 25 per cent in sugar supply, according to the policy adopted by Government as explained by the Sugar Controller for India, at Karachi, in 1944, Calcutta's allocation should be 6 lbs. per month on the basis of past consumption. This being so, it is difficult to understand why the Civil Supplies Department has provided for Calcutta only 2 lbs. of sugar per person per month, particularly as it is very energising food containing 100 per cent carbohydrate. Besides, there is plenty of sugar production in the country and the stock position is also very favourable.

We feel that sugar ration should be increased to at least 4 lbs. per month per person in Calcutta for the sake of convenience, comfort and the dietetic necessity of its population which was starved of proper nourishment due to the great famine of 1943. Similarly, there is no reason for allotting in Bombay City, for instance, a monthly ration of less than 4½ lbs. We feel that there is a sufficiently strong case for an increase of sugar ration all over the country. The consumption of sugar, an important energising food, containing 100 per cent carbohydrate, in the country is very low as compared with various other countries and there is no reason whatsoever to ration sugar any more than is necessary, particularly when the country is producing enough sugar and is in a position to do so without any difficulty in the years to come.

At a time when there is a shortage of energy foods like sugar, potatoes and cereal in the world, we must ensure that sugar is produced in maximum quantity and distributed to the people in order to restore quickly the strength and vitality of the people, who have been half-starved in recent years, due to want of nutrition.

Apart from this rationing and control, there are other problems of post-war reconstruction which should be given immediate consideration and we would refer to these in detail at a later stage.

We have made an attempt so far to give a bird's eye view of the development of the industry in recent years. We will now turn to an examination in detail of the salient features of the industry during the last season 1942-43.

Chief Features of the 1942-43 Season

Early in September 1942 it was announced by the Government of the U.P. that there would be no restriction on the output of sugar in the Province as the demand for the commodity had increased considerably and factories could crush as long as they could. In the previous two seasons factories were asked to restrict production and factories were allotted a maximum quota. In order to ensure a minimum output on the present occasion, however, the Provincial Government allotted a minimum quota and those failing to crush the minimum quota of cane had to furnish valid reasons for not doing so.

It was pointed out in the last *Annual* that the principle of deferred payment of additional price of cane was abandoned in favour of a fixed single large payment of cane as it was found that the system of deferred payment was difficult of administration and the ryot was not very much satisfied with this method of payment. The factories also had considerable difficulty in its administration and unnecessary work was involved.

At first it was announced in November 1942, that the minimum price for sugarcane had been fixed by both the Provincial Governments at eight annas per maund and there was to be no change in the ex-factory price of sugar. But on representations from the members of the industry and the Sugar Syndicate it was decided that there should be an increase in the minimum price by two annas per maund to ten annas per maund. The announcement to this effect was made towards the close of December 1942 and the price increase became effective from 1st January 1943. Simultaneously with the increase in the minimum price for sugarcane the ex-factory price for sugar was increased by Rs. 2-5-0 per maund. This increase in the fixed price for sugar of D24 quality was intended to compensate for both the increase in the minimum price for sugarcane and the higher costs of manufacture which were said to have increased by 60 per cent. This decision by the Provincial Governments was to the satisfaction of

all the members of the industry and no difficulty was experienced by producers for the rest of the season. There was no change in the cess on cane which was maintained at 9 pies per maund (including the special cess of 0-0-6 per maund) in 1942-43.

Before the increase in the minimum price for sugarcane was announced, a crisis in the industry very nearly developed in the west U.P. areas. The speculative activity in the *Gur* Futures markets of Meerut and Muzaffarnagar took up prices for *Gur* to high levels and the return on the basis of these prices amounted to as much as 11 to 12 annas per maund of cane. Some of the mills had to suspend crushing for a time and cane was not available in quantity even at 10 annas per maund. The announcement of the increased price had the desired effect, and Bengal factories also were enabled to crush. They had threatened to be idle, earlier, if a higher sugar price was not granted. The ban on futures trading in *Gur* and the assumption of control over the movement of *Gur* also helped the factories to obtain cane.

Aims of Gur Control Order, 1942

The *Gur* Control Order was passed under the Defence of India Rules in July 1942. The aim of the Order was (1) to fix maximum prices for *Gur* in any specified areas; (2) to prohibit or restrict cane movement from any particular areas; (3) to direct cane growers in that area to deliver cane (a) to a particular sugar factory, (b) in such quantity, (c) at such price, and (d) at such times as may be specified; (4) to prohibit or restrict export of cane from any particular area; (5) to issue *cane* quotas to provinces or areas and direct producers and dealers to deliver the same; (6) to prohibit *Gur* movement and transport, etc. The Sugar Controller was also the *Gur* Controller. The control of movement, prices and production of *Gur* was intended to maximise production of sugar.

Better Working of Sugar Control Scheme

The anticipated difficulties in regard to transport did not arise though there was an increase in the cost of transport particularly by carts.

The Sugar Control scheme worked more efficiently and the confusion noticeable in the earlier months of working did not make itself felt to the same extent. The allotment of quotas to consuming areas and the allocation of transport facilities enabled the quick movement of sugar though so far as the consumer was concerned considerable difficulty was still being experienced through defective distribution at the retailers' end and particularly in smaller towns and villages.

Better Recovery : Lower Quality

A generally higher rate of recovery was obtained as cane was available in the best part of the season in mature condition. There was, however, a deterioration in the quality of sugars manufactured owing to the sparing use of sulphur and the need for maximisation of output.

All-India Marketing Organization Essential

The last and not the least important development of the year is the announcement of the formation of the Central Sugarcane Committee* on the lines of the Indian Central Cotton and Jute Committees. For a long time there has been an agitation for setting up a committee on these lines. The demand has at last been conceded. A further step has thus been taken towards improving industrial efficiency. This body with the Central Sugar Board should be able to formulate an all-India policy. We hope this Committee will start functioning next year, i.e. by 1945. The need for an all-India marketing organization is more than ever great and the control measures in recent years have made it very clear that there should be a uniform policy in regard to the affairs of the industry.

Details of Working of the Season 1942-43

The total number of factories working in the season 1942-43 was the same as in the previous one, though the distribution between the different producing areas was slightly different. (*Vide* Table in the earlier portion.) There were 150 factories working in the last season, the same as in the previous season out of a total of 163 factories in existence in India. Twelve factories did not operate during the season and one has been excluded since it was a small experimental factory for training students with a small and uncertain output.

The number of factories working in the United Provinces in 1942-43 was 71 against 70 in the 1941-42 and 1940-41 seasons. The number in Bihar was 31 against the same number in the previous season and 32 in 1940-41. There was no change in the number of factories in the Punjab, Sind and North-West Frontier Province which was 4. There was a decrease in Madras to 10 from 11 in the two previous seasons. Bombay had nine factories working in 1942-43, ten in 1941-42 and 8 in 1940-41. As for Bengal and Assam, in Bengal alone there were 8 factories working against 9 in 1941-42 and 9 in Bengal and Assam in 1940-41. Orissa had the same number of 2 factories in the last three

* Details re : Constitution of the Committee will be found elsewhere in the *Annual*.

seasons while in the Indian States there has been a gradual increase to 15 from 13 in 1941-42 and 12 in 1940-41.

It would thus be noted that the decrease in the number of factories working in 1942-43 has been largely made up by the increase in the number operating in the Indian States. *This is only an accentuation of the feature of advantageous location of sugar factories in the Indian States due to the onerous tax levies in British India.*

Duration of Working Days

Thanks to the unlimited crush and the availability of cane supplies, factories were naturally able to work longer days though the diversion of cane supplies for the manufacture of *gur* earlier in the season resulted in a smaller crush than was anticipated and the total of 120 working days for the season could not be achieved.

The average number of days of worked by factories in the United Provinces was 112 against 78 in the previous season and in Bihar 96 against 54. "All other provinces" had an average of 89 days against 117 in the previous season. The average for the whole of India was thus 101 days against 85. It would be noticed that the average has been very much affected by the shorter season in the provinces other than Bihar and U.P. As for the two major producing areas, U.P. was affected very much by the diversion of cane supplies for the manufacture of *gur*. In Bihar there was no large-scale diversion though the tendency was more pronounced.

The advantage enjoyed by particular factories in the Eastern districts of U.P. has resulted in a season of 154 days, the maximum for the province. The maximum number of days worked by any factory in the previous season was 121. In Bihar the maximum number of days worked by any factory was 152 against 89 in 1941-42 and the minimum 58 against 30. The maximum for "other provinces" was 278 days against 313 in the previous season. These figures again prove that it was on account of the favourable conditions for crushing in Bihar and U.P. that there was an increase in total production to 10.5 lakhs tons and that conditions for maximisation of production in other provinces were not quite so favourable.

The season was on the whole short. In the United Provinces the crushing season extended from the third week of November to the end of April and in Bihar from the beginning of December to the end of April. In these two provinces the season was longer than in 1941-42. In the remaining provinces it was even shorter than the season 1941-42.

Distribution of Factories according to Number of Days worked in 1942-43 and 1941-42

In the U.P. there was one factory which had a number of working days between 150 and 159. In the previous season there was no factory which had more than 130 working days. Two factories had working days between 140 and 149 and eight factories between 130 and 139. There were fifteen factories between 120 and 129 against 1 in 1941-42, 16 factories between 110 and 120 against 4 in 1941-42, 11 factories between 100 and 109 against 4 factories in 1941-42, 16 factories between 80 and 99 against 24 in the previous season, 1 factory between 60 and 80 against 24 and one having 59 working days and below against 22 in 1941-42.

It will thus be seen that out of 71 factories working in the last season, 58 had working days between 80 and 150 while in the previous season 61 factories had working days of 100 and below. Of the 58 factories in the last season with working days between 80 and 150 there were 42 factories having working days between 100 and 130.

In Bihar, conditions were not so favourable, though it should be said against the experience of season 1941-42 that conditions were far better. There was only one factory which was working for over 150 days but below 159 days. Two factories had working days between 130 and 139, two between 120 and 129, three between 110 and 119 and 5 between 100 and 109. 11 had working days between 80 and 99 against 2 in 1941-42, 6 between 60 and 79 against 9 in 1941-42 and one having 59 working days and below 50 against 20 in the previous season.

In "all other provinces", many factories had a short crushing season owing to the insufficiency of cane supplies. 20 factories had working days below 59 against 10 in 1941-42.

From the all-India angle the analysis is like this. There were 25 factories in 1942-43 which worked for 99 days and below as against 83 in 1941-42. In the 100 to 140 group, there were 73 factories against 24 in the previous season.

Quantities of Cane Crushed by Factories in 1942-43 and 1941-42

The maximum quantity of cane crushed by any factory in the last season (1942-43) was 203,700 tons in the United Provinces against 128,800 in the previous season, the minimum 5,700 against 900 tons and the average quantity 84,900 tons against 55,400 tons.

In Bihar, the maximum was 141,500 tons against 101,900 tons, the minimum 5,700 tons against 18,000 and the average 70,100 against 36,600.

In "all other provinces", the figures were 161,400, 270 and 69,500 against 330,000, 900 and 53,500 respectively.

The maximum quantity of cane crushed for any factory per day in the U.P. in the season 1942-43 as 1,920 tons against 1,800 in 1941-42, minimum 65 against 23 and average 760 against 710 tons.

In Bihar the maximum was 1,180 against 1,140, the minimum 100 against 30 and the average 730 against 530 tons.

For all other provinces the figures were 1,170, 18 and 520 respectively against 1,800, 23 and 640 tons respectively. (*Vide relevant table in The Sugar Industry at a Glance.*)

Quantity of Sugar Produced in 1942-43 and 1941-42

The production of sugar directly from cane in India totalled 1,070,700 tons in the season 1942-43 as against 778,100 tons in 1941-42 and 1,095,400 tons in 1940-41. The production in 1942-43 was thus 37.6 per cent higher than the production in 1941-42. The higher production in the last season was entirely due to the bigger output in the United Provinces and Bihar resulting from the removal of restriction on crushing.

In U.P. the number of factories working in the last season was 71 against 70 in the previous season. The quantity of cane crushed was 6,028,000 tons against 3,877,000 tons while the sugar produced was 612,500 tons against 382,900 tons.

In Bihar, the total quantity of cane crushed by the 31 factories in 1942-43 was 2,171,900 tons against 1,133,600 tons in 1941-42 for the same number of factories. The quantity of sugar produced was 237,400 tons against 117,300 tons.

In Bombay, nine factories working in the last season were able to crush 732,000 tons of sugarcane against 861,000 tons in the previous season for ten factories while the sugar produced was 77,900 tons against 85,000 tons. In Madras, the quantity of cane crushed for ten factories was 291,000 tons against 352,300 tons for eleven factories in the previous season, the quantity of sugar produced being 27,500 tons against 30,800 tons. In the Punjab, Sind and North-West Frontier Provinces the quantity of cane crushed by four factories was 129,600 tons in 1942-43 against 215,700 tons for the same number of factories in

1941-42. Sugar produced was 11,800 tons against 19,200 tons. In Bengal the quantity of cane crushed was very much lower at 199,600 tons against 313,600 tons in the previous season, eight factories working in 1942-43 against 9 in 1941-42. The quantity of sugar produced was 16,500 tons against 23,700 tons in 1941-42. Indian States employing fifteen factories against thirteen in the previous season reported a smaller crush, the figure for 1942-43 being 845,300 tons against 1,241,200 tons in 1941-42. The quantity of sugar produced was 85,000 tons against 116,200 tons. Two factories in Orissa crushed 21,100 tons of sugarcane in 1942-43 against 31,800 tons in 1941-42. The quantity of sugar produced was 2,100 tons against 3,000 tons.

Percentage of Recoveries of Sugar from Cane

Besides an increase in the quantity of cane supplied, factories in U.P. were able to report a large increase in the rate of recovery so that the production of sugar was more than proportionate to the increase in the quantity of cane crushed. *From the point of view of technical efficiency, we would state with satisfaction that there has been a general improvement, and with the difficulties regarding sulphur supplies and other chemicals the achievement should be regarded as creditworthy.*

The maximum recovery for any factory in the United Provinces was 11.72 per cent against 11.22 per cent in 1941-42 and the minimum 7.83 per cent against 7.74 per cent. It is not surprising, therefore, that there has been a jump in the average rate of recovery from 9.87 per cent to 10.16 per cent. In Bihar, on the other hand, the maximum recovery was slightly lower at 11.92 per cent against 12.05 per cent while the minimum recovery was higher at 9.11 per cent against 8.62 per cent. The average rate of recovery was higher at 10.93 per cent against 10.35 per cent.

For "all other provinces", the maximum rate of recovery was 13.35 per cent against 12.45 per cent. The minimum recovery was 5 per cent against 5.3 per cent. The average recovery was 10.28 per cent against 9.22 per cent.

The maximum recovery for "all-India" was 13.35 per cent against 12.45 per cent and the minimum 5.0 per cent against 5.30 per cent. The average was 10.28 per cent against 9.69 per cent.

The recoveries thus increased by 0.29 per cent in the United Provinces, 0.58 per cent in Bihar and 0.73 per cent in the rest of India.

The recovery of sugar was particularly high in Bihar where no factory had an extraction below 9 per cent.

There were six factories working in the U.P. with an extraction of 11 per cent and above against one in 1941-42, in Bihar, 14 against 9 in the same group and all other provinces 4 against 1. The figure for all-India was thus 24 against 11.

Fourteen factories in U.P. had an extraction between 10.5 and 10.9 per cent against 6 in 1941-42, in Bihar 8 against 4 and in all other provinces 3 against the same number. The total for all-India was 25 against 13. Between 10 per cent and 10.4 per cent there 21 factories working U.P. against 20 in 1941-42, 4 in Bihar against 7 and 7 in all other provinces against 3. For all-India the figure was 32 against 30. There were thus 81 factories having an extraction of 10 per cent and above against 54 in 1941-42. Above 9 per cent the total number of factories working in 1942-43 was 124 against 116. It is interesting that it is in the 9 to 10 per cent group that there has been a sharp reduction in the number of factories to 43 in 1942-43 from 62 in 1941-42.

The average recovery percentage in 1942-43 is the highest for all-India as well as all the provinces in the last four seasons. As pointed out above, Bihar has an impressive record, the percentage recovery improving from 9.29 per cent in 1939-40 to 10.93 per cent in 1942-43. The improvement has been gradual though much more pronounced in the last season.

Sugar Production Forecast in 1943-44 Season

The First Memorandum on the production of sugar directly from cane in modern factories in India during the season 1943-44 by the Director, Imperial Institute of Sugar Technology, estimates the total production for the current season at 12,05,900 tons against the actual production of 1,070,700 tons in the previous season. On the first estimate of production, the actual production for the season 1939-40 would still be a record for the sugar industry. But it is said that the condition of the crop since the framing of the First Memorandum has improved and that the Gur Control Order has operated in favour of the sugar factories. Actual production is thus expected by us to be in excess of the estimated figures, and will approximate to 12,60,000 tons, according to our estimate. The U.P. factories have done very well and many factories are still crushing, though in Bihar the estimated production of 2.5 lakhs tons may not be achieved owing to the earlier closing of many factories and the diversion of cane supplies to the

production of gur with the prevalence of large "black market" activities due to abnormally high *gur* prices in adjoining areas (e.g. Bengal) and the absence of any effective control in those areas where high prices for *gur* were obtaining.

The number of factories expected to be working is the same in the last season, 150, but the distribution is again slightly different. There is a reduction in the number to 70 from 71 in the U.P. while in Bihar it is unchanged at 31. Punjab, Sind and North-West Provinces will have only 2 against 4 while there is an increase in Madras by one to 11. In Bombay also 10 factories would be working against 9 while in Bengal there is again a decrease to 6 from 8. Orissa is unchanged at 2 but *there is an increase again in the number of factories operating in the Indian States to 18 from 15.* Attention has been drawn to the increase in the importance of the sugar industry in the Indian States on earlier occasions. *The latest figures only emphasise the fact that drift of the industry to the States has not stopped* and that competition to factories situated in the U.P. and Bihar is continually becoming more vigorous, though in the present circumstances, they have nothing to fear from the new producers.

Many factories in the United Provinces may work till the end of April and some even up to the end of May. The reduction in cane prices by 0-2-0 per maund, with effect from 15th May 1944, will assist the prolongation of the season, and production of a larger quantity of sugar. In Bihar, the season finished earlier than expected. The estimated average number of working days is 120 in the United Provinces and 103 in Bihar against the average number of working days of 112 for U. P. and 96 for Bihar in the last season.

Sulphur Supplies and Sugar Production

The problem of securing adequate supplies of sulphur and other stores has naturally been difficult in the last two years. The acute shipping situation has resulted in a considerable curtailment of supplies and factories were advised to make as economical an use of stores and supplies as possible, consistent with the maintenance of proper efficiency at the plants. The working of the last two seasons has, however, proved that it is impossible to maintain efficiency with a frugal or miserly policy in regard to the utilization of stores and supplies. It was believed that the problem of sulphur supplies had been satisfactorily solved and that considerable ore reserves had been found in Baluchistan. It was hoped that the import of large quantities of sulphur in the crude state would keep the factories above want.

The supplies of sulphur in the crude form naturally gave considerable difficulties to the sugar factories. The sulphur had to be refined and very few factories had facilities for using sulphur direct. Equipment at some of the factories was altered and this naturally meant an increase in costs of production.

It will be remembered that in the 1941-42 season, considerable difficulty was experienced and there was considerable dislocation to traffic on account of the floods in Sind and factories were put to great difficulty. It was even pointed that it would not be possible to supply any sulphur to factories and they were asked to conserve their stocks as far as possible. Arrangements were made to import refined American sulphur but these were not successful. Production was somehow maintained at factories though the inadequate use of sulphur naturally resulted in a deterioration in colour and quality of sugar. The insufficient refining coupled with the efforts to reduce the number of qualities in order to increase production will, it is believed, result in a considerable deterioration in the quality of Indian sugar, and place it at a great disadvantage in foreign markets. It was therefore urged that supplies of adequate quantity of sulphur should be made to factories in time and that if it was proposed to send sulphur ore, arrangements should be made sufficiently early so that factories could do the necessary refining.

The Food Department advised factories towards the close of 1943 that they had to reduce consumption of sulphur from 0.04 per cent to 0.035 per cent. If factories found it difficult to reduce their consumption to this level they were advised to seek the assistance of the Director, Imperial Institute of Sugar Technology, Cawnpore.

Representations from factories for increasing allotments are first scrutinized by the Director before they are considered by the Food Department. The allotments that have been made make due allowance for the possible increase in cane crush in the next season. The Department, had, however, expressed its willingness to make further allotments to any factory which succeeded in crushing more cane than anticipated.

With a reduction in the allotment of quantities of sulphur, factories have been naturally anxious to make sure that the ore supplied to them is of a certain assured sulphur content, as it has been found that there has been a reduction in the recovery to 15 per cent from 25 per cent. This has naturally placed many factories at a disadvantage. This aspect of the question, it is believed, is receiving the attention of Gov-

ernment. The difficulties in getting sufficient quantities of ore, the uncertain nature of the sulphur content and the deterioration in the quality of sugar have led to the representations by sugar factories that refined sulphur should be imported from America and Sicily (the latter now seems possible) in time for the next season, i.e. 1944-45. Sicily is one of the world's biggest producers of sulphur and it is believed and hoped that at least so far as the requirements of the next season are concerned there will be no great difficulty.

Technical Assistance to Factories

The Director, Imperial Institute of Sugar Technology, Cawnpore, has informed the sugar factories that for rendering assistance to them in economising their consumption of sulphur and in using Baluchistan ore, Government have now provided additional staff at the Institute. Factories requiring any assistance have been advised to inform the Institute immediately indicating the exact nature of the difficulty specially whether it relates to the engineering side, (as the design, construction and erection of plant) or to the chemical or process side. This information is considered essential to enable the Institute to send an officer who would be able to render the desired assistance. The following list will serve to give an indication of the type of problems on which assistance is ordinarily given although problems not included in this would also be attended to by the Institute as far as possible :—

1. Design, construction and operation of plant for refining Baluchistan ore.
2. Prevention of corrosion of autoclaves.
3. Improvement of quality of refined sulphur.
4. Arrangements for direct burning of Baluchistan ore.
5. Modified processes for clarification of juice and syrup for reducing sulphur consumption.
6. Filtration of muddy juice obtained from juices clarified with reduced quantities of lime and sulphur.
7. Modification of design of sulphitation plant for juice and syrup.
8. Improvement of quality of sugar produced with reduced quantities of sulphur.

Due to the problem of refining sulphur and economising its use as far as possible, which cropped up since 1940-41, there has been naturally considerable research on this subject. At the 12th Convention of the Sugar Technologists' Association of India at Cawnpore, Dr. Kloppenburg's valuable paper on carbo-sulphitation was greatly

appreciated as the technologists saw in it a really sound method to cut down the use of sulphur, which is worth trying in factories.

This process, as the name indicates, is a combination of the existing sulphitation and carbonation processes. In view of the promising results, it can be said that a new method has been introduced which can help the present acute situation of sulphur shortage.

The main features of this process are that there is a considerable reduction in the quantity of sulphur and lime used and there is a possibility of adopting the process without involving costly alterations in the existing sulphitation or carbonation plants.

A consumption of lime at 0.15 per cent cane and sulphur at 0.09 per cent is quite reasonable under normal conditions. With the new process these figures can be brought down to 0.075 per cent and 0.02 per cent respectively without affecting the quality of sugar. Instead of pure sulphur, Baluchistan ore or pyrites can be used without any difficulty. To introduce the carbo-sulphitation process successfully, some alteration in the existing sulphur furnace and sulphitation tanks are essential.

In order to provide facilities for factories that have no refining facilities it was reported that the Chemicals Directorate of the Government of India had come to an agreement with Messrs. Sepulchre & Co., New Delhi, for the erection of a plant for refining Baluchistan sulphur with a refining capacity of 500 tons of ore per month. The factory would operate under controlled conditions both as regards price and technical efficiency. We are not aware whether the proposal has materialised and operations have begun, till the moment of writing.

Sugar and Sugarcane Prices for 1943-44

Reference has been made earlier to the decisions taken by the Government of India and the Provincial Governments regarding the sugar and sugarcane prices for the current season (1943-44). It was pointed out that with the higher costs of living and the greater return available on foodgrains it was necessary to encourage the ryot to grow sugarcane by offering him higher prices. For this purpose both the mills and important Chambers of Commerce advocated that there should be a minimum price of Rs. 1-4-0 per maund of cane. It was estimated that even with the operation of the Gur Control Order, large quantities of cane were being diverted for the manufacture of *gur* and that unless the return on cane supplied to factories was satisfactory

it was not correct to expect that mills would get all the quantity of cane needed by them. The policy of maximisation of output also needed a more liberal outlook on the part of the Government authorities.

The decision of the Government of India on sugar prices for the 1943-44 season was announced on November 9, 1944. The press note issued on the subject pointed out that there had been an increase in the sugar price by thirteen annas per maund and that a special excise duty of thirteen annas per maund (the difference between the old and new ex-factory prices) on all stocks of sugar held by the factories and dealers on the date of the issue of the ordinance would be levied in order that this unexpected profit may not go to either the industry or the dealers.

The increase in the ex-factory price of sugar was intended to enable the Provincial Governments to fix a higher minimum cane price for the current season. Accordingly, the Provincial Governments of the U.P. and Bihar announced an increase in the minimum cane prices to twelve annas per maund, i.e. an increase of two annas over the last season (1942-43). The increased price of two annas per maund was, however, not payable in cash. The producers were directed to pay the amount in Defence Savings Stamps or Certificates. The cash price paid to the cultivator was, therefore, the same, viz. ten annas per maund. This method of payment was in pursuance of the policy of checking the operation of inflationary forces. Along with the increase in the minimum price for sugarcane, the cane cess was also raised to one anna per maund both in the U.P. and Bihar.

The press note issued by the Government of India on November 9, 1943, stated :—

“The ex-factory price of sugar is controlled by the Government of India ; the price of sugarcane is controlled by Provincial Governments. In order to ensure an adequate supply of sugar, the Government of India have decided to raise the ex-factory price of sugar from today (November 9, 1943) by annas thirteen per maund. This will enable the Provincial Governments to fix the minimum price of sugarcane so as to give an increased return to the grower ; and the new price of sugar should, in equity, apply to sugar manufactured from cane bought at the new prices to be fixed by Provincial Governments, not to stocks of sugar already in the hands of factories and dealers.”

“Government have reason to believe that manufacturers and holders of stocks themselves have no desire to benefit by any increase in the price of sugar in respect of existing stocks and desire that any such

profits should be passed on to Government, which alone can utilize them to the best advantage of the community."

Temporary Sugar Excise Duty Ordinance, 1943

"His Excellency the Viceroy has accordingly issued an Ordinance today imposing a special excise duty equal to the difference between the old and new ex-factory prices on all stocks of sugar held by factories and dealers on the date of the Ordinance. It will be levied by the Central Excise Department on the stocks in the possession of factories and large dealers and by officers of Provincial Governments on the stocks held by small dealers."*

Procedure for Special Excise Assessment

The following procedure was laid down for the assessment of the excise :—

"Every holder of such stock must, within the next seven days, submit to the officer appointed by the Collector of the Central Excises or the Provincial Government, as the case may be, to carry out assessment in the area in which the stock-holder conducts his business, a full and true declaration of all sugar now in his possession, giving the details prescribed in the form of declaration appended to the ordinance."

"Stock-holders will not be supplied with copies of the form by Government but are expected to prepare them themselves in manuscript or type. On receipt of the return the duty will be assessed and will be payable into the Treasury either in a lump sum or in not more than three monthly instalments beginning from December 1, 1943. As soon as the duty has been assessed and the stock has, where necessary, been checked, the assessing officer will release the sugar."

"To enable the work to be carried out expeditiously, all traders should submit their returns as soon as possible, entering therein full particulars of all sugar owned by them, whether lying in their warehouses or in transit from factory to warehouse or from one warehouse to another; and given full co-operation from the trade, it is hoped that the entire process will be completed within not more than 15 days."

*Bihar and U. P. Fix Minimum Prices of Cane for
1943-44 at 12 Annas per Maund*

The Bihar Government issued the following communique on 9th November, 1943 :—

* The text of the Ordinance is given in an earlier portion of this Annual.

"In exercise of the powers conferred by Section 21(1) of the Bihar Sugar Factories Control Act, 1937, the Governor of Bihar is pleased to fix annas twelve per maund as the minimum price for the purchase of cane during the crushing season 1943-44 exclusive of the cess imposed under Section 29(2) of the said Act."

"Under Clause (3) of Rule 31 of the Bihar Sugar Factories Control Rules 1938 read with Section 21 of the Bihar Sugar Factories Control Act, 1937, the Governor of Bihar is pleased to direct that the occupier or manager of a factory or a purchasing agent shall deduct from the amount due for cane sold to him by a canegrower or Canegrowers' Co-operative Society, annas two for each maund of cane for payment to such canegrower or Canegrowers' Co-operative Society in a deferred instalment in accordance with Rule 41A of the said Rules."

Rule 41A of the Bihar Sugar Control Rules provides that when a deduction is made from the price of cane under Clause (3) of Rule 31, the occupier or manager of a factory or a purchasing agent shall, within a fortnight of the close of each month and in the manner prescribed by the Cane Commissioner, invest the amount so deducted in the Indian Post Office Defence Savings Bank on behalf of each canegrower or Canegrowers' Co-operative Society.

In calculating the total deductions under Clause (3) of Rule 31 at the end of each month in respect of a canegrower or a Canegrowers' Co-operative Society, annas eight or more shall be taken as rupee one and fractions of a rupee less than eight annas shall be ignored, necessary adjustments being made in the price of cane paid in cash.

The occupier or manager of a factory or a purchasing agent shall submit a return in form XXVI showing the amount invested on behalf of each canegrower or Canegrowers' Co-operative Society. The return in form XXVI must reach the Cane Commissioner within seven days of the last date of investment.

The communique issued on the 9th November, 1943, by the U.P. Government in this connection reads as follows :—

"Under sub-rule 8A of Rule 20 of the United Provinces Sugar Factories Control Rules the Governor is hereby pleased to direct that every occupier or manager of a factory and every purchasing agent :—

(1) shall make a deduction at the rate of two annas per maund calculated to the nearest quarter of a rupee from the price payable to a canegrower or a Canegrowers' Co-operative Society as the case may be in the season 1943-44 ; and

(2) shall —

(a) in the case of a canegrower forthwith pay the amount so deducted to the said canegrower in Defence Savings Stamps :

Provided that if the amount so payable to the canegrower exceeds on any occasion rupees ten, the manager or occupier of a factory or the purchasing agent may take for each ten rupees an application in the form prescribed by the Postal Department from the grower for investment in National Savings Certificates, and shall give an acknowledgement in the form given below for the sake and shall pay the balance in Defence Savings Stamps. He shall then obtain National Savings Certificates for the canegrower and deliver them, as soon as possible, to the canegrower who shall return the receipt to the occupier, the manager or the purchasing agent as the case may be ;

(b) in the case of a Canegrowers' Co-operative Society, deposit the amount so deducted in the nearest Post Office and intimate the same to the society concerned. The Canegrowers' Co-operative Society shall utilize the amount so deposited either for the purchase of Defence Savings Stamps or for the purchase of National Savings Certificates or for investment in the Post Office Defence Savings Bank Accounts in the name of each individual member concerned.

Note : Where an occupier or manager of a factory or a purchasing agent makes payment for the price of cane direct to a member of a Canegrowers' Co-operative Society, the word 'canegrower' shall be deemed to include such member."

The announcement of the Government for an increase of price of sugar by only thirteen annas per maund while the minimum price of sugarcane in the U. P. and Bihar was increased by two annas per maund was very severely criticized by the industry, firstly because in their opinion the minimum price of cane should have been increased to at least one rupee per maund in order to enable the cultivator to get an adequate return from the cane crop in comparison with the return from other food crops so that he may be induced to grow cane during the next and subsequent seasons, and secondly because the increase of thirteen annas was too inadequate as the cost of manufacture as a result of the increase in price of cane would go up by at least Re. 1-4-0 per maund of sugar. The Indian Sugar Syndicate and the Indian Sugar Manufacturers' Association emphatically protested against the increase of thirteen annas and expressed the view that the sugar prices should be increased by at least Re. 1-4-0 if the industry was not to be handicapped.

The Government's case was that a larger crush would result in reduction of costs and it appears to us that it was the feeling of the Government of India that on the last occasion when the price of sugar was increased by Re. 2-5-0 per maund the manufacturer was given a larger margin of profit than he deserved, and they took this opportunity of curtailing that liberalness by asking the manufacturer to reduce his profit due to the smaller increase in the price of sugar. We feel that the abnormal increase in transport charges, prices of stores, etc. will make it impossible for the factories to reduce their cost of production and we have no doubt that the margin of profit per maund of sugar would be reduced considerably in the 1942-43 season as compared with the previous season.

We reproduce below a Press Note issued by Mr M. P. Gandhi on the 11th November, 1943, in regard to the increase in sugar prices by Re. 0-13-0 per maund.

COMMENTS ON INCREASE IN SUGAR PRICE OF 0-13-0 ONLY

Press Note issued by Mr. M. P. Gandhi, Editor, Indian Sugar Industry Annual.

Apropos the announcement of the Central Government for an immediate increase in sugar prices by Re. 0-13-0 per maund with a view to ensure an adequate supply of sugar, Mr. M. P. Gandhi, Editor, Indian Sugar Industry Annual, says that it is generally known that this action has been taken in order to enable the Governments of U. P. and Behar which fix minimum prices of cane for sugar factories to increase the cane prices this season for giving a better return for their cane crop to cultivators, to compensate them for increased cost of cultivation and to create an inducement to divert a larger cane crop for manufacture of sugar (as against *Gur*). On the current basis of linking cane prices with sugar prices, however, the permissible increase in cane price would be of about Re. 0-1-4 per maund of cane, assuming a consumption of 10 maunds of cane for every maund of sugar. An increase of Re. 0-1-4 per maund of cane over the last season's price of Re. 0-10-0 per maund will be too meagre to confer any benefit on the cultivator whose real position will, instead of improving, be worse as compared with last season, in view of the tremendous increase in his cost of production, etc.

The cultivators have been clamouring for an increase of about Re. 0-8-0 per maund of cane this season. The Sugar Manufacturers unanimously recommended an increase of at least Re. 0-4-0 per maund of cane (with an appropriate increase in sugar prices) in order to ensure adequate supplies of cane this season and the following season in 1944-45 for a maximum output of sugar required in larger quantities, to prevent the cultivators from turning to more paying alternative food-crops, and to maintain the stability of the Industry, taking a far-sighted view of the matter. This appears to be difficult of realization from the present increase in sugar prices.

If the U. P. and Behar Governments take action, according to current reports,* of increasing cane prices by Re. 0-2-0 per maund, it will cut into profits of the sugar factories in those areas to the extent of about Re. 0-7-0 per maund of sugar for which the factories will have to pay Re. 1-4-0 more for their cane as they will only realize Re. 0-13-0 per maund more for their sugar. Factories in U. P. and Behar will thus be adversely affected if cane prices are increased by more than Re. 0-1-4 per maund.

Factories outside U. P. and Behar, e.g. those in Bombay-Deccan area having their own cane farms, and those in other areas, e.g. Bengal where minimum prices of cane are not fixed by Government, will benefit considerably by the present increase in sugar prices, and will have the necessary impetus to produce the maximum quantity of sugar out of profit motive alone.

As far as the consumer is concerned, he can complacently bear the increase of Re. 0-13-0 per maund which works out to about five per cent of the present price of sugar, which incidentally has not witnessed any increase like other articles of foodstuff, e.g. wheat, rice, etc.

In regard to the imposition of the special excise duty of Re. 0-13-0 per maund which is only on the *present* stocks of sugar, whether with factories or merchants, Mr. Gandhi suggests that the most equitable and fair method of disposal of this amount which would run to over 30 lakhs of rupees, would be in its grant as bonus to cane cultivators in the shape of deferred payment for cane supplied by them to factories during the preceding season.

The growers also expected Government to fix a higher minimum price of cane in order that they might receive a fair measure of profit from cultivation of cane and in order that the earnings from cane cultivation may bear some relation with the earnings of the other food crops which had gone up in price during the last few years. Thus the growers were dissatisfied at the Government's announcement of an increase of only two annas in the cane prices per maund, and although there has not been much opposition to the scheme of payment, namely, ten annas per maund in cash and two annas in National Savings Certificates to be cashed at the termination of the War, there has been considerable diversion of cane supplies and it is reported that there has been a lack of enthusiasm for preparation of land for the next season's early ripening varieties of cane. Most of the cane would be ratooned during the next season and the area under cane crop might also be smaller.

Unfortunately for the industry a severe hailstorm has destroyed the food crops. Particularly in the Western U. P. considerable damage is reported to have been caused to the standing crop. The loss has been to such an extent that the U. P. Government has decided not to pursue the savings drive. The result of the damage on account of the hailstorm and untimely rains has been reflected in the prices for wheat

* The U. P. and Bihar Governments increased the price by Rs. 0-2-0.

and other commodities. The statutory maximum prices for foodgrains, which were announced by the U.P. Government could not be strictly enforced and it was reported that in several places quotations were nearly double the maximum prices. The hope, therefore, that the Government would be able to ensure adequate cane supplies as a result of the success of the anti-inflationary policy will not be completely justified.

It was noticed that in some parts of the U. P., Punjab and Bengal, it was not possible for factories to obtain cane at the rate of twelve annas per maund and several factories had to pay higher prices during some parts of the season. In fact, the Punjab and Bengal Governments announced fixation of higher minimum prices of cane, and assured the factories that some special scheme will be put into effect whereby they would receive adequately higher prices of sugar to compensate them for the higher minimum prices of cane which they had to pay during 1943-44.

Schedule of Sugar Prices for 1943-44

The schedule of ex-factory controlled rates of various grades of sugar which came into force with effect from November 10, 1943 is given in an earlier portion of the *Annual*. There is a uniform rise of thirteen annas per maund over the prices for the 1942-43 season. The definition of refined sugar has been altered so as to include sugars of colour 27 and 28.

By a subsequent notification dated 20th November, 1943, the Sugar Controller has fixed the wholesale price of khandsari, sugarcandy and bura to Rs. 15-4-0, Rs. 19-0-0 and Rs. 16-4-0 per maund respectively. *Vide* Table No. 39 in an earlier portion of the *Annual*.

The various ex-factory prices have been fixed on the basis of the Sugar Standards prescribed by the Bureau of Sugar Standards for the season 1943-44 which, however, differ materially in certain respects from the previous season's standards.

Life of U.P. and Bihar Control Acts Extended Further

There has been a further extension in the life of these acts for a period of three years. The Governor gave his assent to the U. P. Sugar Factories Control (Amendment) Act, 1944 which, *inter alia*, provides for the continuation of the Sugar Control Act of 1938 till 1947 and for the setting up of the Sugar Cane Varieties Advisory Committee in December, 1943. The following is the full text of the statement of Objects and Reasons :—

"The United Provinces Sugar Factories Control Act, 1938, is in force till the 30th June 1944. With a view to maintain continuity of work, particularly in the matter of cane development and supply, it is proposed to extend the operation of the Act till 30th June 1947.

Sugar factories in the province have reached a high degree of technical efficiency but the cultivation of sugarcane is still below the standard achieved by the other sugar producing countries. Large sums have been spent in recent years on research, demonstration and propaganda with a view to introducing improved varieties of cane with a higher sucrose content and more resistant to disease but progress has been somewhat slow. It is felt that legislation is now necessary to accelerate the work of bringing about an all-round improvement in sugarcane cultivation by the elimination of unsuitable varieties.

It is, therefore, proposed to set up a committee to advise on the suitability or otherwise of various varieties of cane. On the advice of the Committee the Government will be empowered to declare that any variety of sugarcane including ratoon cane grown in a specified area is unsuitable for use in factories in that area and similarly seed of specified variety is unsuitable for distribution for sowing. Factories will not be required to enter into agreement to purchase cane of a variety declared unsuitable for use. The distribution by factories or cultivators by themselves of seed of a variety which has been declared unsuitable is prohibited.

Frequent representations have been made that while under the Act a factory is compelled to purchase cane in its reserved area, if offered by the grower, there is no specific provision which prevents such grower from selling his cane to another factory. Besides being unfair to the factory concerned this leaves a loophole for pirating of cane by other factories from the reserved area of a factory which in a year of short supply might assume serious proportions. Further, the uncertainty of a factory that it will not get the cane on the development of which it has spent money hinders to some extent the development of improved varieties. Opportunity has, therefore, been taken to provide that cane grown in the reserved area of a factory shall not without the permission of the Cane Commissioner be sold to another factory, or to any person for supply to a factory other than the factory for which the area is reserved.

Advantage has also been taken of the opportunity to remove some defects in the language of the existing Act."

The industry has, therefore, to be thankful for some developments in its favour. The question of cane development is very important at

the present moment. For costs of production cannot be reduced without an increase in the yield of cane per acre. Much may not be done in the war time but the continuity of work as emphasized by the Act and the direction of effort in new directions should help the industry considerably in the future.

With the amendment to Bihar Control Act, a Bihar Sugarcane Varieties Advisory Committee was formed which in addition to exercising and performing the powers and duties conferred or imposed upon it by the Act advises the provincial government and the Agricultural Department on all matters connected with sugarcane cultivation that may be referred to it.

The Committee shall consist of ten members, the Director of Agriculture (Chairman), the Cane Commissioner, the Cane Development Officer and the Sugarcane Specialist (Secretary) being ex-officio members of the Committee. The remaining members shall be nominated by the provincial government and include an equal number of representatives of the factories and growers. A factory representative besides being a person employed in a sugar factory in Bihar shall either be a sugarcane chemist or one connected with the cultivation of sugarcane.

The term of the Committee will be for a period of three years (or a shorter period if the Government so prescribe) and it shall meet once a year at Pusa or more if necessary to scrutinize the performance records of new varieties of sugarcane and for other routine matters.

Bihar Control Rules Amended

Reference has been made earlier to the fact that certain amendments have been made to the Bihar Control Rules. These relate to the bonding of cane and agreements between individual growers or co-operative societies on the one hand and factories on the other.

According to the new rules it is no longer obligatory on growers to estimate cane output at 300 or 400 maunds of cane per acre as at present provided. A cultivator can, in future, while continuing to reserve cane raised on not more than one-third of the area of his land suitable for cane cultivation can estimate the yield on a different basis. In the event of there being cane in excess of the estimated quantity provision has been made for making factories accept the surplus subject to the approval of the Cane Commissioner.

Two new clauses (inserted in November 1943) added after Rule 44 and 47 provide for a fine upto Rs. 750 in cases where specific penalty

has not been laid at present and also prescribe that no prosecution under the Sugar Control Rules shall be instituted except upon complaint made by or under the authority of the Cane Commissioner.

Sugarcane Survey for India (1943-44)

Sir T. S. Venkataraman, formerly of the Imperial Sugarcane Research Station, Coimbatore, was conducting a comprehensive sugarcane survey of the country on behalf of the Imperial Council of Agricultural Research but had to give up the work on medical advice. He had completed an extensive tour of the sugarcane producing tracts in Madras, Hyderabad and Orissa. At the time of giving up work he was engaged in examining witnesses in Mysore, Bombay and Baroda. The work will now be carried on by Mr. N. L. Dutt, Director, Imperial Sugarcane Research Station, Coimbatore. The efforts of Mr. Dutt, the Central Sugarcane Committee and the various sugarcane varieties committees will, it is believed, be to co-ordinate and devise ways and means for bringing about a general improvement in the condition of the Indian Sugarcane crop.

Transport Difficulties in U.P. and Bihar

With the increasing strain on transport facilities it was feared that considerable delay would be experienced in cane transport and factories were asked to utilize as far as possible road transport.* In the last season road transport also became very costly and factories had to wait for a long time. The factories on the Oudh and Tirhut Railway have been informed that there would be considerable restriction in the allotment of wagons for cane transport and that factories which were drawing railcane supplies should spread their requirements over a period and not wait until gate supplies of cane were over. The difficulty on account of wagons will be evident from the fact that the time limit for loading and unloading has been reduced to nine hours from twenty-four hours previously and that demurrage would have to be paid by factories for longer detention. The representations made by factories to restore the time limit to the original number of hours did not meet with success and it was said that individual cases would be looked into and corresponding adjustments made.

Apart from the difficulty in respect of cane supplies it is feared that factories would not be able to get the necessary quantities of coke, coal, stores and lime to maintain continuity of protection. The Govern-

* During 1943-44, production was not much affected as loading of cane was not prohibited from stations beyond 25 miles. In 1944-45, wagon supplies will be restricted by one-third, and loading will be prohibited from beyond 25 miles and within ten miles radius of factories. Total production is likely to be affected as factories will have to depend on cane within ten miles coming by road.

ment authorities have been sympathetic to the claims of factories but the grant of priorities did not guarantee wagon allotment. Eventually it was decided that individual requirements should be notified to the War Transport Board who will make the necessary arrangements.

*Central Sugarcane Committee**

It was only recently announced that the Central Sugarcane Committee would begin its functions from the beginning of the new financial year and that the Committee would be a body corporate registered as a society under the Registration of Societies Act, by a resolution of the Government and will be financed out of the proceeds of the Sugar Fund. In view of the growing importance of the Indian sugar industry and the need for a reduction in costs of production, especially of sugarcane, it being a major item in the manufacture of sugar, it was emphasized that there was need for the formulation of a central committee conducting vigorous research in the growth of better varieties having larger sucrose content and giving a higher yield. It was said that the Indian Central Cotton Committee and the Indian Central Jute Committee had done valuable work in their direction and that with the large duties collected from the industry under excise there was need for large expenditure in this direction and some co-ordinated action by a central body. It cannot be denied that much work useful has been done in cane research in the Government Institutes at Coimbatore and other places but much remains to be done and in this country, which is backward in agriculture, any amount of research would be useful. This aspect of the question will be considered in greater detail elsewhere in this Annual.

Suffice it to say here the formation of the Central Sugarcane Committee with the Central Sugar Advisory Board will facilitate a more vigorous policy being pursued by the Government towards the industry and give it the needed attention from an all-India angle as early as possible and as effectively as possible.

The function of the Indian Central Sugarcane Committee will be to undertake the improvement and development of growing, marketing and manufacture of sugarcane and its produces in India and of all matters incidental thereto. This includes items such as agricultural, technological and economic research on sugarcane, gur, sugar and their bye-products; the improvement of crop forecasting and statistics; the production, distribution and testing of improved varieties; the adoption of improved agricultural practices; enquiries and recommendations relating to banking and transport facilities and transport routes; the

* Resolution of the Government of India is given in the *Sugar Industry at a Glance*, p. lxii.

maintenance of an institute of sugar technology and other similar matters. The Committee will also advise the Central and Provincial Governments concerned on any points which may be referred to it by them, provided the subject-matter of the reference falls within the prescribed functions of the Committee.

In order that the manufacturers, growers and traders should have a fair representation on the Committee, it is proposed to have a large body consisting of as many as 44 persons.

It is also proposed that the Committee will continue to maintain the Imperial Institute of Sugar Technology both as a teaching and a research institution and will be responsible for the increase and maintenance of sugar standards. Returns under the Sugar Production Rules, the maintenance of sugar trade information services and any special work that may be required by the Central or by any provincial Government will be directly under the control of the Director of Imperial Institute of Sugar Technology.

The Government of India will finance the Committee by placing at its disposal the entire proceeds of the Sugar Excise Fund. The amount so credited shall continue to be one anna per cwt. of white sugar produced in British India out of the excise duty levied on it. The question of increasing this amount will be considered after the war. If the amount placed in the fund in any year falls short of the needs of the Committee, the Government of India will automatically grant a loan free of interest to cover the deficit subject to the conditions given below.

1. The expenditure of the Committee will not exceed the present level of expenditure which has been fixed at Rs. 11.75 lakhs, and

2. The first charge on any surplus occurring thereafter will be towards the repayment of this loan. The Committee will meet all the present liabilities of the fund and take over its assets.

Estimated Production of Sugar in Season 1943-44

It is estimated that the quantity of cane crushed by the U.P. factories in the current season will be about 74,00,000 tons yielding an output of sugar of 7,30,000 tons, based on a recovery percentage of 9.88 per cent. Bihar will have an output of 2,12,000 tons on a crush of about 21,00,000 tons of sugarcane with a recovery percentage of 10.36 per cent. Indian States would produce 1,14,100 tons out of 11,90,000 tons of cane with a recovery percentage of 9.58 per cent. Other provinces will produce 1,70,900 tons. In the last season the actual production of the United Provinces and Bihar was 8,49,900 tons so that

there is an increase of 96,000 tons. The increase is mostly on account of the U.P. which crushed till June 1944. The production of Indian States in 1943-44 was 85,000 tons and that of other provinces 1,35,800 tons. It is significant to note that the average recovery percentage was 10.28 per cent in the last season while the estimated recovery percentage in the current season is 9.92 per cent.

It is interesting to compare the estimate of production by the Director, Imperial Institute of Sugar Technology with the actual production figures issued by the Sugar Controller for India. The comparative statement is given below.

		Production upto 22-4-44	Estimated Production in 1943-44
		Tons	Tons
U.P.	..	6,73,977	6,74,400*
Bihar	..	2,12,225	2,45,900*
Bombay	..	69,760	88,700
Madras	..	34,791	39,700
Punjab	..	10,410	15,500
Bengal	..	12,538	25,700
N.W.F.P.	..	5,756	..
Orissa	..	1,690	1,300
Indian States	..	1,12,483	1,14,100
Total		11,33,630	12,05,300

* Production in U. P. will be, according to our estimate, 7,30,000, and in Bihar 2,13,000 tons. We expect total production to be about 12,50,000 tons.

It will be seen that the estimate figures are nearly correct and might be exceeded in the case of the United Provinces. The figures in respect of Bihar have been below expectations as most of the factories ceased crushing in the beginning of April. The output of the Indian States can be expected to improve as also of Bombay and Madras which have a late crushing season.

In order to stimulate production in the United Provinces the Provincial Government has reduced the price of cane supplied to factories after May 15 to ten annas per maund. The whole of the price will be paid to the cultivator in cash and no deduction will be made from it for investment in defence savings certificates. This policy of encouraging production of cane might prove to be successful in the

present circumstances as gur prices are very low and there is no tendency to produce gur further. Ryots might tender their surplus cane to factories but this policy in the long run is not calculated in the best interests of the industry. There has been no appreciable decline in foodgrains prices in recent months and if the production programme for the next season is to be successful to any extent there will have to be a clear declaration of policy.

Area under Sugarcane in 1943-44

The total area under sugarcane in 1943-44 is estimated at 41,13,000 acres as against 36,00,000 acres in 1942-43, or an increase of 14 per cent. The total estimate of the yield of raw sugar (*gur*) stands at 56,96,000 tons as against 50,76,000 tons last year, or an increase of 12 per cent.¹

The following table will show the detailed figures of the area, yield of raw sugar and yield per acre, for the season 1943-44 :—

Provinces and States.	Area.	Yield of raw sugar (Gur).	Yield per acre.
	Acres.	Tons.	lbs.
United Provinces (including Rampur State) ...	2,192,000	2,790,000	2,851
Punjab ...	553,000	573,000	2,321
Bihar ...	422,000	469,000	2,489
Bengal ...	339,000	480,000	3,172
Bombay (including Indian States) ...	162,000	521,000	7,204
Madras ...	143,000	418,000	6,326
North-West Frontier Province ...	90,000	100,000	2,489
Assam ...	45,000	50,000	2,489
Orissa ...	34,000	69,000	4,546
Central Provinces & Berar ...	29,000	43,000	3,321
Sind (including Khairpur State) ...	7,000	8,000	2,500
Delhi ...	3,000	2,000	1,422
Mysore ...	40,000	70,000	3,920
Hyderabad ...	37,000	80,000	4,843
Bhopal (Central India) ...	7,000	5,000	1,000
Baroda ...	4,000	16,000	8,950
Jaora (Central India) ...	1,000	2,000	3,164
Total for 1943-44 ...	4,113,000	5,696,000	3,102
Total for 1942-43 ...	3,600,000	5,076,000	3,158

¹ Vide Final General Memorandum on the Sugarcane Crop of 1943-44 published in the *Indian Trade Journal* of the 16th March, 1944.

INDIAN SUGAR INDUSTRY

In addition to the area for which particulars are given above, the crop is grown on a small scale in certain other tracts in India, the average area of which for the last five years has been some 1,55,000 acres with an estimated yield of 2,15,000 tons.

The average percentage of sugarcane area in the various tracts to the total area under sugarcane in India based on the figures for the five years ending 1941-42 is given below :—

United Provinces 51.7 per cent ; Punjab 11.7 per cent ; Bihar 10.6 per cent ; Bengal 7.9 per cent ; Bombay 3.5 per cent ; Madras 3.1 per cent.

In the table below we give the area under sugarcane, under improved varieties, and production of cane per acre, gross production of *gur*, and calculated production of cane crop ; from 1930-31 to 1943-44 :

Year	Total acreage under sugarcane in thousand acres	Acreage under improved varieties in thousand acres	Average cane production per acre (in tons)	Gross production expressed as gur (in thousand tons)	Calculated production of sugarcane 10-11 factors (in thousand tons)
1930-31 ...	2,905	817	12.3	3,359	35,780
1931-32 ...	3,076	1,170	14.1	4,116	43,316
1932-33 ...	3,424	1,845	14.9	4,859	51,129
1933-34 ...	3,422	2,295	15.3	5,055	52,455
1934-35 ...	3,602	2,433	15.1	5,292	54,346
1935-36 ...	4,154	3,056	15.3	6,102	61,202
1936-37 ...	4,582	3,452	15.6	6,932	67,322
1937-38 ...	3,869	2,968	15.5	5,579	55,637
1938 39 ...	3,130	2,673	15.0	3,572	35,851
1939-40 ...	3,640	2,893	15.0	4,748	47,672
1940-41 ...	4,598	3,480	15.0	4,794*	59,090
1941-42 ...	3,515	2,773	15.0	4,371	41,030
		(our est.)			
1942-43 ...	3,590	...	15.0	5,076*	
1943-44 ...	4,113			5,696*	

Gur Control Order, 1943 †

In pursuance of the policy of maximisation of sugar output and the need for ensuring adequate supplies of sugarcane at the minimum price fixed by the provincial governments of U.P. and Bihar it was found necessary to discourage the output of *gur* and regulate its

* *Vide* Final General Memorandum on the Sugarcane Crop of 1942-43, in the *Indian Trade Journal*, dated 18th March, 1943.

† The text of the *Gur Control Order*, as amended up to 16th March, 1944 is given in the earlier portion of the Annual entitled "*Sugar Industry at a Glance*."

movement. It will be remembered that the uncontrolled production of gur in the previous season and the high prices for the same resulted in a large diversion of cane supplies for the manufacture of gur and that many factories had to close down crushing for want of supplies of cane. The prevailing prices for gur in the U.P. and Bihar admitted payment of a price of eleven to twelve annas per maund against the ten annas per maund which was the minimum fixed by the provincial governments in 1942-43. Before the increase in the minimum price from eight annas to ten annas per maund there was a crisis in Western U.P. and sugarcane was unobtainable even at twelve annas per maund. Great speculative activity in the futures market of Meerut and Muzaffarnagar had resulted in a rise in prices to as much as fourteen annas per maund.

The U.P. Government at first placed a ban on trading in futures in gur in the two markets mentioned above and restrictions were placed also on the movement of gur to areas within the province. This resulted in a slight decline in prices but the prevalence of high prices in adjoining markets and the dissatisfaction with the measures passed by the governments still resulted in the denial of considerable quantities of cane to the factories.

It was for this purpose that it was decided to regulate the prices and distribution of gur and accordingly an order was passed on July 24, 1943.

The decision to regulate prices and production of gur was reached at the Food Conference held in New Delhi earlier in the year.

The Order is very comprehensive and the Gur Controller for India who is also the Sugar Controller has the following powers :—

- (1) To fix maximum prices for gur in any specified area ;
- (2) To prohibit or restrict cane movement from any particular area ;
- (3) To direct cane growers in that area to deliver cane (a) to a particular sugar factory, (b) in such quantity, (c) at such price, and (d) at such times as may be specified ;
- (4) To prohibit or restrict manufacture of gur ;
- (5) To issue gur quotas to provinces or areas and direct producers and dealers to deliver the same, and
- (6) to prohibit gur movement and transport.

It will be clear from the above that the authorities are anxious to afford facilities to mills for increasing the output of sugar as much as possible. It will also be clear that the authorities are anxious to control prices and arrange movement in an orderly manner and relieve the strain on transport facilities. A larger production of gur would necessarily mean the delay in the allotment of wagons to factories as gur being a perishable commodity will have to be accorded priority. Another important consideration is that there should not be any great diversion of demand for sugar from gur consumers as has been the case in recent years. Owing to the relative cheapness of sugar there has been greater demand and this has made the problem of exports and the elimination of black markets difficult.

The prohibition of the manufacture of gur within a certain area from the factories, the direction of supplies of cane to particular factories are clauses in favour of mills.

Regarding movement, no gur, shall, after such date and from such area as the Controller may notify in this behalf, be offered for transport by railway or in any manner whatsoever by land or river by a consignor or accepted by the railway servant or by any person whatsoever for transport or transported by rail, road or river except under a permit issued by the Controller in such form and subject to such conditions and in respect of such areas as he may from time to time prescribe :

Provided that this clause shall not apply to the transport by railway or in any manner whatsoever by land or water of gur (a) by a *bona fide* traveller as part of his personal luggage or (b) under and in accordance with a permit issued by a provincial authority before the date of this order.

This order mainly affected the surplus producing areas namely the U.P., Bihar and Madras. All other areas were deficit areas. Even though the Punjab was an important producer of gur, over five lakhs tons, she had to import her further requirements from the North-West Frontier Provinces and the U.P.

The first announcement under this Order was made on August 14, 1943, saying that exports of gur were not allowed except from the provinces of U.P. and N.W.F.P. The price for gur was fixed at Rs. 8 per maund and Rs. 8-8 per maund in U.P. and Bihar. The fixation of the price for gur, it was said, was related to the minimum price for gur. Allowance of course was made for difference in quality and destination. The price of Rs. 8 per maund in U.P. was considered

low and said that it would discourage very much the growth of sugar-cane in the next season.

At first it was expected that there would be uncontrolled exports of gur from the two provinces mentioned above and that private traders could take advantage of the favourable conditions for marketing areas in other areas. The price in these areas was as much as Rs. 20 per maund. In Bengal on occasions the quotation was as much as Rs. 30 per maund. An announcement in this regard by the U.P. Government, however, made it clear that the District Magistrates had powers to prohibit the exports of gur if it was found that there had been a rise in the price to above Rs. 8 per maund. The Gur Movement Control Order of the U.P. Government ceased to be in force with the passing of the Central Government's Gur Control Order and there was no restriction on the movement within the province.

It was, however, made clear in October 1943, that exports on private account were banned and Government had the monopoly of inter-provincial trade. The Scheme, while it banned exports from one province to another on private account, contemplated allotments of periodical quotas from the surplus areas to each deficit area. Little was known then of the plans which the Government had for procuring gur from the surplus provinces. The Press Note issued on November 12, 1943 made the position clear in this regard.

"From the 1st November, 1943 no private exports of gur are allowed from one province to another. Gur is exported by the Governments of the surplus areas to the Governments of the deficit areas or to their accredited representatives in accordance with the instructions of the Gur Controller for India, who allots periodical quotas for the export of specific quantities from each surplus area to each deficit area. These quotas are allotted after taking into consideration the local supplies of gur and the exigencies of transport. No permits are granted to private individuals and inter-provincial trade in gur is a matter only between the Governments or the accredited representatives of the exporting and importing provinces.

"Arrangements are being made for the distribution of imported gur in deficit areas at prices in strict parity with those paid to the exporting provinces. The receiving Governments have been asked to distribute the imported gur strictly at prices at which they obtain it from the exporting areas with the addition only of the freight and incidental charges including profit of annas twelve per maund each for the wholesaler and the retailer, irrespective of the number of hands through which the gur passes.

“Steps are also being taken to regulate the movement of cane and *gur* from the sugar factory areas and to keep the prices of *gur* in these areas in parity with the prices of cane in respect of supplies made to sugar factories especially in the U. P. and Bihar.”

Simultaneously with the announcement of minimum prices for the current season the ceiling prices of Rs. 8 per maund in the U. P. and Rs. 8-8 per maund in Bihar were announced. The price of Rs. 8 per maund fetched a price of ten annas per maund which was the cash portion of the price payable to the ryot in 1943-44, and had been fixed at such a low level to discourage the production of *gur* in preference to the manufacturing of *gur*.

While the aim of the Gur Control Order was certainly laudable as it was the first measure designed to help the producers in preference to the ryots there was the general apprehension that the sugarcane crop for 1944-45 would be very much affected as there was already a feeling that the sugarcane crop in the factory areas for 1944-45 had already declined by five to seven per cent. The Government also failed to maintain a price of Rs. 8 per maund. The licensing of agents and dealers, the control of movements, the grant of permits, the allotments of quotas and the monopoly of inter-provincial trade naturally created difficulties. In the early months when private exports were permissible there was a freer offtake but later on a bottleneck in the *gur* trade developed and large stocks had accumulated. The price came down to Rs. 6-8 as against controlled rate of Rs. 8 per maund. The defect of the Gur Movements Control Order passed earlier and which was superseded later was not, however, noticeable as with the excess of stocks relative disparity in prices in districts vanished. The indiscriminate control of *gur* in areas where factories were not situated and the decline in prices to below the rate fixed by Government was the subject of considerable criticism, and it was widely feared that the object of the authorities to maintain a price ratio between *gur* and sugar had resulted in great confusion and that the total output of both *gur* and sugar would be affected. The authorities were sure of being able to control the situation as it was expected confidently that the anti-inflationary drive would result in a large reduction in prices for foodgrains and make it attractive to grow sugarcane.

Apart from this aspect of the question certain other important considerations were involved. While there is a scarcity of *gur* in other parts of the country large stocks of *gur* were accumulating in U. P. and Bihar. The other question whether the exporting governments meant to make any profit out of the *gur* sales is not clear. Again in the quota areas there has been some confusion. The Punjab used to get its require-

ments from N.-W.F.P. and U. P. For some reason or other the N.-W.F.P. was not able to control its price of *gur* and actually the price was Rs. 14 per maund. The Punjab Government naturally wanted to buy from U. P. equally good *gur* at a lower price. The N.-W.F.P. eventually permitted private exporters to send out *gur* at prices much higher than the controlled rate to Sind which was also a deficit province.

Another important consideration is the prevention of "black markets" and the profiteering by importing governments. The *gur* acquired by importing governments is at a price far below the market value in the importing areas and the question of disposal and the elimination of black markets would necessarily mean some difficulty. Also the smuggling of *gur* from areas on the borderline presented a great source of profit to the profiteer.

Like the Sugar Control Order it can be expected that the Gur Control Order with the amendments also would prove to be successful. The problem of allotment of wagons was necessarily a difficult one in the earlier stages as large stocks of *gur* had been manufactured and there was a huge surplus in the main producing areas. Usually, the *gur* trade between provinces is not large, most of the *gur* produced being consumed locally on account of the perishable nature of the commodity. It was only recently, it would be remembered, that the U. P. Government introduced the Gur Marketing Scheme and it was proposed to educate the ryot and provide facilities to develop a market for his produce. This scheme will necessarily have to be dropped for the time being.

In the drive for maximization of sugar production, *gur* production should not be materially affected except perhaps to the extent of the increased production of sugar. Hitherto, the ratio of sugar production to *gur* production has been 1 : 3. One would certainly wish an increase in the ratio of sugar production to total production but as a result of the indiscriminate application of the Gur Control Order there should not be an increase in the output of sugar alone and a decrease in *gur* manufacture. This aspect of the question will be understood if it is remembered that in the United Provinces, the Eastern areas are not affected. Only in the Western U. P. particularly in Meerut is there large-scale production of *gur*. In Bihar, only South Bihar is affected. In the Punjab the problem is not very important as there are only six factories and it would be possible to ensure easily the cane supply to these factories. In Madras also the position is the same. In the case of Bombay the question does not arise as most of the cane needed by factories is grown on the farms owned by them. In Bengal it was always problematical and the question of transport was more important than anything else.

It would, therefore, be clear that in the administration of the Gur Control Order, special facilities should be afforded to factories in the reserved areas and the ryot should be encouraged to tender his cane to sugar producers. *Gur* production should not be completely discouraged and every effort should be made to maintain prices at the controlled rate if not at a slightly higher level. It would not serve the purpose if the problem affecting the sugar industry were handled in a one-sided manner. The question of cane development and an increase in the total area under the crop is more than ever important.

It is satisfactory to note that the U. P. Government has been able to sell a good quantity of *gur* to the Defence Department and that recently it was announced that there was an increase in the ration of sugar to the troops, *gur* being the additional ration. Nothing is known of the offer to the Bengal Government to sell *gur* at Rs. 8 per maund but recently (April, 1944) it was announced that Calcutta citizens would be entitled to one seer of *gur* besides their sugar ration.

The Madras Government has always been efficient in the execution of orders. *Gur* export has been completely controlled and persons having surplus *gur* were asked to surrender their stocks to the Government at a price of Rs. 6-4 per maund. The export price has been fixed at Rs. 8 per maund. How it is proposed to utilise the difference between the price at which *gur* is acquired and sold to other provinces is not clear.

It would be interesting here to examine the effect of *gur* control on the production of sugar.

It was explained above that *gur* production was concentrated in certain areas even in the main producing areas and that apart from a limited increase it would not be possible to expect a substantial increase in total production of sugar. Meerut factories have also experienced difficulty in respect of sugarcane requirements. In the season 1939-40 when conditions were ideal for production and where there was no difficulty in respect of cane supplies factories in Western U. P. produced a total of 100.8 lakhs maunds of sugar. It can be expected that at least the same production could be achieved during the 1943-44 season, thanks to *gur* control, if not more, as the difficulties on account of the transport of cane may prove to be more acute. There are also other difficulties regarding manufacture. In Eastern U. P. conditions cannot be far different as there was no diversion of cane supplies from factories even with the high prices for *gur*. The output in 1939-40 of these factories was 85 lakhs maunds. There has been an increase in the acreage under

the crop in U. P. by eight per cent. Allowing for this increase in sugarcane supplies the total U. P. for the 1943-44 season can therefore be expected to be 7.3 lakhs tons.

The problem of *gur* control was difficult in the case of Bihar. In 1942-43 season South Bihar factories were badly affected and the total output of sugar was only 6.5 lakhs maunds against 14.77 lakhs maunds in 1939-40. In the 1943-44 season output can at best be at the level of 1939-40. In North Bihar output was placed at 58.16 lakhs though it was reported that there was some diversion of supplies to other centres. The total output has been placed at above 2 lakhs tons. The production of U.P. and Bihar can, therefore, be placed at 9.45 lakhs tons against 7.6 lakhs for 1942-43. In other provinces it cannot be expected that there will be any big increase. Bengal will fall short of the allotted quota even with the higher minimum price while Punjab will not report any great increase. The States may be expected to do better. Thus, the other provinces' output will be the same at three lakhs tons. The maximization policy will, therefore, result in a total output of 13.3 lakhs tons at best. The latest figures of production, however, do not justify these hopes.*

Sugar Enquiry Committee, Bengal, 1942-43

The report of the Sugar Enquiry Sub-Committee appointed by the Government of Bengal was available only on the eve of 1942-43 season and much could not, therefore, be done to implement the recommendations of the Committee. The Government of Bengal are naturally anxious to develop the sugar industry in the province and make itself independent in regard to its requirements of sugar the estimated output capacity of the existing mills being only 50,000 tons against the annual consumption of 1.5 lakhs tons. In spite of the favourable climatic conditions for the growth of the sugarcane crop the sugar industry in Bengal has not made any appreciable progress in recent years. The Tariff Board pointed out that the slow growth of the industry was due to the preference of the ryot for paddy and jute crops. There has not been much co-ordination between the mills and the growers and the areas over which cane was grown were widely diffused. The absence of concentrated supplies of cane, of proper communications and facilities for marketing were also a great handicap. The railway freight also proved costly. To examine the many questions and improve the conditions in the industry the Committee was asked to report.

* *Vide* Table on page 38.

As a result of the findings of the Committee the Bengal Sugar Board was constituted. The Board is an advisory body and its function is to guide and advise the provincial government and the interests concerned on the following matters relating to the sugar and *gur* industries in the province :—

(1) Development of sugarcane cultivation in Bengal in the best interests of the growers, the industry and the province, including experiments in respect of varieties of cane, manures and methods of cultivation; and control and prevention of pests and diseases. .

(2) Formulation of schemes for better organization of cane-growers, co-operative or otherwise, and for irrigation and drainage with a view to fostering the development of cane cultivation.

(3) Development and improvement of communications and transport facilities for sugarcane, *gur*, sugar and bye-products of the industry.

(4) Sale and purchase of sugarcane including determination of proper prices of cane to be paid to cultivators from year to year according to crop conditions and the prospects of the sugar industry, organizations and methods and the terms and conditions therefor, including the prevailing system of weighment and allowances, and maintenance of sugarcane and sugar factories in Bengal, in the mutual interests of both growers and manufacturers.

(5) Determination of zones, if necessary as between different factories, and as between mill agents and co-operative unions.

(6) Development of the sugar manufacturing industry on sound lines in all its aspects, including the best utilization of the bye-products of the industry.

(7) Development of the *gur* manufacturing industry especially in areas where there are no sugar factories.

(8) Marketing of the products and bye-products of the cane, sugar and *gur* industries, and safeguarding the interests of these industries in Bengal against competition, both internal and external, prejudicial to their development.

(9) Dealing with such other matters as may be conducive to the development of sugar and *gur* industries on proper lines.

The Board has been set up for a period of three years.

It will be quite clear from the foregoing that the recommendations of the sub-committee and the objects with which the Sugar Board has been formed is on the lines of U. P. and Bihar. It is unfortunate, however, that the problem has not been viewed from an all-India angle, and that provision has been made for protection against competition both internal and external. Bengal factories have for a long time been complaining of heavy competition both from U. P. and Bihar factories and imported sugar. Suffice it to point out here that there should not be unilateral development and that the difficulties of the industry should not be increased in the post-war period. As the Minister for Commerce and Industry Bengal, remarked at the first meeting of the Bengal Sugar Board there is good scope for development of the sugar industry and that export prospects are bright. The remarks are quite true of the position of the industry at the present moment and indeed for some years to come. But if development during this period is indiscriminate and cost factors are ignored the industry will not be able to face competition when it materializes. The same feeling is also prevalent in the Punjab where the Development Minister met with opposition to his proposal that factories should take out licenses for crushing and that developments or extensions to factories should not be made without the prior sanction of the Government. The Central Sugar Board and the Central Sugarcane Committee will, it is believed, take up these questions.

In the season 1942-43 Bengal factories experienced great difficulty and the original price of Rs. 11-11 per maund was not in any way attractive to Bengal factories. With higher labour costs, freight charges and a lower recovery most of the factories would work at a loss. It was not surprising, therefore, that most of the factories decided to suspend crushing. Only after the increase in the price for sugar by Rs. 2-5 per maund from the beginning of 1943 factories began crushing and even then there was the demand for the surcharge on sugar of ten annas per maund which was granted to them in the previous season. The total output for the season was thus only 16,000 tons against the capacity of 50,000 tons. As regards the 1943-44 season the position is even more complicated. No doubt the factories have been granted a high minimum price for cane to induce the cultivators to tender cane to factories but how it would be possible to dispose of the manufactured commodity is not clear. The provincial government are reported to have said that some subsidy would be granted and that there will not be any separate price for Bengal sugar. It remains to be seen whether Bengal factories would be able to report any large increase in production.

*No Appreciable Increase in Exports. Increased
Internal Consumption*

The position in regard to exports as a result of the termination of the International agreement and the disappearance of Java as a principal competitor has not in any way improved matters. For demand within the country in spite of the introduction of rationing in important urban centres and the demands on account of the Defence Services have improved to such a great extent that it was found necessary to limit the total of exports to 15,000 tons during 1943-44. The activities of the U. K. C. C. did not interfere with the activities of the industry as it was at first feared and it was authoritatively stated by the Sugar Controller that no sugar was sold to the U. K. C. C. after the introduction of control. The trade with Iran in sugar was confined to earlier purchases and stocks of Java sugar in this country.

It is unfortunate that production problems and the unsympathetic attitude of the Central Government have not enabled the Sugar industry to take advantage of the present conditions in industry. That there will be great demand for sugar in the post-war period and that even at the present moment certain areas are suffering from a sugar famine cannot be denied. The insistence of the Government of India to maintain low prices for sugar have been responsible for the lower level of production. The insistence on lower production costs has been to a certain extent exaggerated as under the present conditions the policy of maximizing production should be encouraged as far as possible consistent with the interests of consumers. Considering the prices in other articles it is satisfactory to note that the ex-factory price for sugar is not more than double the pre-war price. There has naturally been some dissatisfaction in the industry that the members have not been afforded suitable opportunity for developing the export trade in sugar. This aspect of the question will be considered in greater detail when considering the post-war problems for the industry.

No Change in Protective Duty till March, 1946

There has been no change in the protective duties and the same measure of protection has been extended for a period of another two years, that is, till the 31st March, 1946. Previously, i.e., in 1942, the extension of protection was made for a period of two years till the end of March, 1944. The main reason for extension, as pointed out in the explanatory note appended to the bill, is that no stable data is available on the basis of which enquiry by a Tariff Board can be made. In

the absence of such enquiry it is not possible to ascertain the quantum of protection required during normal years and thus the *status quo* is maintained till 1946. The present duty is Rs. 6-4 per cwt. which, with the excise duty of Rs. 3 per cwt. and surcharge of 20 per cent, works out Rs. 11-1-7 1/5 per cwt. and will continue till 31st March, 1946.

The U. P. Power Alcohol Act, 1940 (Act VIII of 1940)

In August 1940, His Excellency the Governor of the United Provinces gave his assent to the Power Alcohol Bill which was passed by the Provincial Legislature in October 1939, in order to make provision for controlling the production, supply and distribution of Power Alcohol in U. P. and to make its admixture with petrol in certain specific proportions for use as a motor fuel compulsorily. No change was made in the text of the Power Alcohol Bill which was enacted in the same form. The text is given in the 1939 *Sugar Industry Annual* (p. 79).

The recommendations of the Power Alcohol Committee of the U. P. and Bihar were given effect to only after a long time and the Power Alcohol Act of the U. P. came into force with effect from April 28, 1941.

Orders for the enforcement of the Act were at first issued in the Bareilly, Bijnor, Budaon, Pilibhit and the Chandausi and Amroha tehsils of the Moradabad District. The proportion of alcohol that was sold for mixing with petrol was determined at 20 parts of the former to 80 per cent of the latter. The Act was subsequently extended to other areas as well, licences being issued to the Kesar Sugar Mills and the Oudh and Hindustan Sugar Mills jointly for manufacturing Power Alcohol from molasses. The price at which they should sell alcohol to the Government was fixed at 6 annas per gallon. Following the grant of licence these mills placed orders in the United States for the necessary plant. It appears, however, that the deliveries in respect of these orders have not yet been received and that the bulk of the production of power alcohol at the present time in the U. P. is being carried on in the existing distilleries, with some adaptations.

It has been pointed out on more than one occasion that both the Central and provincial governments have been dilatory in the matter of production of Power Alcohol and that even with the favourable report in 1938 by the Joint Power Alcohol Committee of Bihar and U. P. (on which the founder-editor of this *Annual*, Mr. M. P. Gandhi had the honour of being a member) it was a long time before the necessary legislation was passed in the U. P. With the opposition from the Central

Government and the petrol interests, no substantial progress was made in regard to actual production.

In the last year, seriousness with which the provincial governments were pursuing the control measures instituted for regulating the sale and distribution of molasses seemed to suggest that considerable progress had been made with regard to the production of both rectified spirit and power alcohol. But nothing has been heard of any large increase in the production of power alcohol either at new plants or at the old distilleries. Nothing is heard either of the proposal for bringing into this country twelve power alcohol plants under Lease-Lend. The hopes that something would be done in this direction as a result of the recommendations of the Grady Mission have been belied.

Speaking at the Sixth Ordinary General Meeting of the members of the Indian Sugar Syndicate, the Chairman Mr. Lala Karamchand Thapar remarked while dealing with the problems connected with the production of power alcohol, that 'beyond the irksome control over unwanted molasses very little has been achieved by the Government.'

The following extracts from his speech will make the position clear :
" . . . With the fall of Burma and the possibilities of a further reduction in the petrol supplies, the matter again came up for discussion in the month of July, 1942 and a conference was convened at New Delhi under the auspices of the Commerce Department. The conference covered various questions on the production and distribution of power alcohol and rectified spirit and it was rumoured at the time that the Government had placed orders for 12 alcohol power units to be imported from America. Licences were granted to two of our member factories to erect some of these units. But unfortunately nothing has so far materialized. The conference resolved that the existing distilleries might be asked to produce rectified spirit to the maximum of their capacity and that the excess production should be placed at the disposal of the provincial governments with instructions to utilize it for transport purposes. To assist an increase in the production of rectified spirit the conference resolved to set up a technical committee to assist in the erection of indigenous plants to distil rectified spirit and to help the manufacturers with technical advice. Even here we do not know the extent of the result achieved. We are not aware whether the production of rectified spirit has been stepped up at all to the extent anticipated although we deeply feel the irksome control that has been imposed upon the entire production of molasses as though the whole of our stocks will be converted into spirit . . . "

We pointed out in the last Annual that Distillers Co., Limited of London had prepared in March, 1943 after a close enquiry a detailed report and recommendations for construction of alcohol distilleries in India of standard design, each one million gallons unit capacity of power alcohol per annum (300 gallons per day). This Company also offered its services for the development of such projects. In the preliminary stages construction of six distilleries was recommended. The plan proposed would operate under the *Melle Fourth Technique Process* for the production of absolute alcohol direct from molasses wash. It was stated that subject to suitable priority being available from the Government the whole project could be executed and operated in less than two years. It is a pity that nothing has been done in this direction and one of the main recommendations of the Tariff Board has not been fully implemented.

The policy in regard to the stepping up of the production of rectified spirit at the existing distilleries, it is reported, has not been such as to ensure maximum production. A price of Rs. 2 per gallon was at first paid but later for no valid reason there was a reduction to Re. 1 per gallon. The reduction in the price for rectified spirit was made as the material was needed for the defence services and as the margin of profit for the producing units was reported to be satisfactory.

Power Alcohol Act in Bihar Passed in 1942

During the year 1942, the Government of Bihar also passed the Power Alcohol Act. But no progress was made in regard to production of power alcohol up to March, 1944.*

Power Alcohol in Nizam Hyderabad

The Power Alcohol factory started by the Nizam Government and equipped at a cost of Rs. 8 lakhs had a successful season last year producing 3 lakhs of gallons of power alcohol and utilizing 5,600 tons Molasses. The factory is situated near the sugar factory at Bodhan.

Power Alcohol Act in Bombay

The Bombay Power Alcohol and Petroleum Act of 1942 received assent of the Governor-General in December 1942. One Sugar Mill in

* In exercise of the powers vested in him under Section 24 of Bihar Power Alcohol Act the Governor of Bihar has framed the rules for regulating the manufacturing, mixing and sale of power alcohol. These rules were published in the provincial gazette.

Deccan has so far been equipped and is expected to produce about 30,000 gallons of Power Alcohol per month.

Power Alcohol Manufacture in U.P.

During 1942-43, 2,28,000 gallons of power alcohol were manufactured in U.P. and supplied in tank wagons.

Molasses Control in U. P.—Government's Order of September 1942

In order to ensure sufficient supplies of the raw material, the U. P. Government placed restrictions on the movement of molasses by rail to any station in the U.P. by an order issued on September 9, 1942. The Order also provided for the fixation of maximum prices at which persons holding stocks of molasses to the distilleries were required to dispose of them and to give priority supplies of molasses to the distilleries in accordance with the directions issued by the Excise Commissioner, U. P. The order was intended to ensure that adequate supplies of molasses were made available to the distilleries for the manufacture of power alcohol and rectified spirit for use as motor fuel. The full text of the first U. P. Government Order was given on page 25 of our 1942 *Annual*.*

Molasses Control: Central Control still Delayed

Control of Molasses was first effected with a view to providing a sufficiency of raw material for the distilleries which are producing power alcohol and rectified spirit. To achieve this, the U. P. Government placed restrictions on the movement of molasses by rail to any station in the U. P. by an order issued on September 9, 1942 as stated above. The order also provided for the fixation of maximum prices at which persons holding stocks of molasses to the distilleries were required to dispose of them and to give priority supplies of molasses to the distilleries in accordance with the directions issued by the Excise Commissioner, U. P.

The total ban on the movement and disposal of molasses naturally met with considerable objection from the members of the industry as it was pointed out that with the slow progress made in regard to the production of power alcohol, there was no need for storing all the molasses. The requirements of the distilleries were only about 30,000 tons while the total production of the factories was 2 lakhs tons. The difficulty in respect of storage and the low prices fixed for molasses were

* Vide "Indian Sugar," September, 1942, p. 297.

the subject of criticism and it was only after considerable representation that the authorities could be prevailed upon to issue permits for the disposal of molasses. Movement by rail was difficult as there was a shortage of tank cars and packed supplies were difficult owing to the scarcity of containers and the cost of packing.

The chief complaint was that there was no restriction on the sale and distribution by persons other than producers and that there was no control of molasses outside the provinces of U. P. and Bihar. Thus certain dealers were able to realize good prices in outside provinces. Also, the proposal to levy a surcharge of Rs. 2 per maund in the later stages by the U. P. Government was not quite clear as it was said that the Government was gaining at the expense of the industry. The new order promulgated on March 13, 1944 has rectified certain anomalies but the industry's demand for a higher price has not been conceded though for concentrated molasses the ceiling price is more favourable. The most important change is that during the current year not only molasses in the hands of sugar factories but also in the hands of stockists is subject to control both with regard to movement and price. It is stated in Clause 8 of the new order that no owner or occupier of a sugar factory or other person holding stocks of molasses shall sell molasses "at a price exceeding that fixed by Government in the area in which the molasses are held." The province has been divided into several regions and there is a proper controlling authority for every region to whom matters should be referred.

As pointed out above there is no change in the prices payable to producers. Only prices for concentrated molasses are more favourable. For Meerut Division the price per maund is six annas, in any other areas in the U. P. four annas and two annas according as the molasses comes from the broad-gauge or meter gauge factories. The ceiling price of *gur* molasses is six annas anywhere in the U. P.

Apart from the objection to the low level of prices the direction to dealers that they should not sell above the ceiling prices will discourage buying and mills would experience considerable difficulty if they could not give any inducement to dealers. This aspect of the question is not quite clear.

The Bihar Government also published a notification on 26th May, 1943, restricting movement and sale of molasses within the Province.

The Bengal Government, also, passed its own Molasses Control Order. Thereby control will be exercised in respect of the molasses produced in the province by the sugar factories and in the case of stock holders holding stocks in excess of 10,000 maunds. Movement will be

regulated by permits issued by the Excise Commissioner, Bengal, who has been vested with the power to fix controlled prices and supplies to the distilleries.

Lack of Foresight in Promoting Manufacture of Power Alcohol

If only arrangements had been made in time for increasing the production of alcohol, there would not be such disorganization in transport facilities. Even the sugar industry itself would have been greatly facilitated by the running of lorries for the conveyance of cane and the despatch of sugar by using rectified spirit or power alcohol. After meeting the internal demand for producing tobacco and manufacturing liquors, more than 4 lakhs tons surplus molasses are available in this country which, if utilized, will produce no less than 22 million gallons on the basis of one ton of molasses producing 56 gallons of power alcohol. Nearly Rs. 65 lakhs could thus be retained within the country, without affecting the excise revenues.

*All-India Provision for Fuel Alcohol—Fuel Alcohol Order, 1943 **

On February 20, 1943, the Government of India published in the *Gazette of India* the text of the Fuel Alcohol Order making provision for the use of power alcohol as a motor fuel on an all-India basis. This order is applicable without prejudice to the provisions of the United Provinces Power Alcohol Act, the Bihar Power Alcohol Act, and the Bombay Power Alcohol and Petroleum Act. The intention of the Government of India appears to be to make all the Provinces fall in line with the U. P., Bihar and Bombay with regard to the intended use of power alcohol as motor fuel.

The main noteworthy feature is that the order is applicable not only to anhydrous power alcohol of 99.5% purity, but also to rectified spirit of not less than 95% purity. It appears to be the intention of the Government of India that for mixture purposes rectified spirit could be used in the same manner as power alcohol.

It may be noted that the Power Alcohol Acts of U.P. and Bihar do not provide for admixture with rectified spirit, and power alcohol, according to them, is used only for the ethyl alcohol containing not less than 99.5% ethanol.

Burma Sugar Factories in Enemy Occupation

Three factories were working in Burma in 1940-41 as against the same number in 1939-40. The quantity of sugar produced in 1939-40 in

* For text of the Act, vide "Indian Sugar," dated February, 1943.

these factories was 27,700 tons as compared with 21,800 tons in 1938-39. Since the enemy occupation of Burma, however, these factories are reported to have gone out of production and what the present state of these factories is cannot be definitely stated. If the Allies are successful in re-occupying Burma, the Indian industry will have an opportunity of exporting about 30,000 tons of sugar to Burma. But when this contingency will materialize, it is difficult for us to prophesy.

Fluctuating Area under Cane

The increase in the area under the sugarcane crop in the early years of the last decade was quite in accordance with the growth of the industry, but during the last few seasons there has been a considerable fluctuation in the area under the crop. It can be stated with some amount of certainty that the fluctuations in the acreage under sugarcane are due partly to conditions of rainfall during the period of plantation, the prevailing prices of sugarcane, the price of *gur*, as also the returns from alternate crops and the prospects and the price likely to be derived from the cane crop in the next season. With the short cane crop in 1938-39, the Governments of Bihar and U. P. fixed an inordinately high level of minimum prices for sugarcane which led to an increase in the area under the crop for 1939-40. The persistence of the policy of fixing high minimum prices could not discourage cane production in spite of the fact that there was chaos in that season. So much so, in 1940-41 the production of sugarcane was again on a large scale and surplus cane had to be burnt in many cases as with the policy of restricting production, all the cane grown could not be utilized. With the continuance of the policy of curtailing production during the 1941-42 season also, cultivators were informed in time and there was naturally a decline in the area under the crop. The absence of any restriction in regard to production resulted in an increase in the area under the crop in 1942-43 to 3,600,000 from 3,515,000 acres in 1941-42. The continuance of prosperous conditions in the industry caused a further increase in the area in 1943-44 to 4,113,000 acres but it is feared that the relatively lower level of prices for sugarcane cultivation, as compared with the return from other crops, will discourage any increase in 1944-45.

Improved Quality of Cane Essential for Prosperity

It is hardly necessary for us to stress the fact that the prosperity of the sugar industry in India depends to a large extent on the availability of disease-free cane of good quality with plenty of sucrose, and of early and late ripening varieties, in order that factories may be able to extend their crushing season from the present short period of about

4 months to at least 7 months. It is equally essential to check disease and pests which reduce the sucrose content to a large extent in the affected areas, and until this is done it is impossible to obtain a larger recovery. A diseased crop of cane means a loss both to the manufacturer and also to the agriculturists engaged in the cultivation of cane. While, no doubt, successful efforts have been made to improve the quality of cane during the last few years, it will generally be agreed that a lot more remains to be done for increasing the yield, particularly in the direction of educating the cultivator to adopt modern methods of cultivation, to get better seeds, to pay more attention to rotation of the cane crop, to manuring, to check insects, pests and diseases, to check ratoons, etc. We have referred to this subject, in great detail, in the following pages.

Uses of Cane

In spite of the large demand for sugarcane for the manufacture of *gur* it should be said that mills were successful in getting a larger proportion of the cane crop for the manufacture of sugar though it would have been possible to produce more sugar if there were greater co-operation from the growers and there was not such great difficulty in regard to transport. The delay in the announcement of the higher price for sugar and the increase in the minimum price for sugarcane resulted in a slight diversion of sugarcane in the early months of the last season. The proportion of cane crushed by mills to the total crop is according to our estimate higher at 22.5 per cent. The cane crop for 1942-43 was only slightly higher at 3,600,000 acres, an increase of 2 per cent over the figures for the previous season. The quantity of cane crushed by factories was 10,410,000 tons. In 1941-42 the yield of the crop was estimated at 35,000,000 tons and the quantity of cane crushed by factories 8,026,000 tons. The proportion of cane crushed to total crop was 21.2 per cent. In 1940-41 the proportion was lower at 19.1 per cent while in 1939-40 it was as much as 27.7 per cent.

The quantity of cane crushed for *gur* manufacture is roughly $2\frac{1}{2}$ times the quantity crushed by the factories and represents about 50 per cent of the crop. It will be interesting to see the different uses to which the cane crop is put. Table No. 11 in the "Sugar Industry at a Glance" shows the various uses of cane along with the percentage of each to the total production for the last 8 years. It is of interest to note, however, that the total percentage of cane crushed in factories in U. P. and Bihar in relation to the total cane produced in these provinces is different. We give the statistics below.

*Percentage of cane crushed in factories to the total cane-crop in
respective Provinces**

Season	U.P.	Bihar	Bombay	Bengal	Madras	India
1934-35	13'6	30'9	8'0	2'7	5'0	12'3
1935-36	17'1	40'4	11'7	4'8	5'0	16'0
1936-37	17'1	49'3	13'0	5'2	6'0	17'6
1937-38	18'6	62'3	14'0	...	...	17'8
1938-39	14'5	44'5	...	...	(Our Est.)	19'5
1939-40	25'5	48'4	...	...	(Our Est.)	27'7
1940-41	13'9	29'3	...	...	(Our Est.)	19'1
1941-42	14'6	...	...	...	(Our Est.)	21'2
1942-43	21'9	35'0	...	...	(Our Est.)	25'0

These figures will show in a correct perspective the importance of the cane-crushing factories in the agricultural economy, particularly in Bihar. So far, this fact has not been fully appreciated, owing to these statistics not being brought to the notice of all concerned, prominently. It must be noted that in some districts in the U.P. and Bihar where there is a congestion of factories, as much as 90 per cent of the cane grown is crushed by factories, e.g. Fyzabad and Partabgarh Districts in the U.P.†

In this connection the Report on the Marketing of Sugar by the Government of India contains very interesting figures but those are available only to the end of 1938-39 for four years. The average for the four years 1935-36 to 1938-39 shows that of the total estimated yield of sugarcane of 30,062,000 tons in an area of 2,169,000 acres, 7.5 per cent was utilized for seed purposes, 8.7 per cent for edible purposes while the total under these heads including stock feeding was 16.6 per cent. The quantity of cane crushed in vacuum pan factories was only 18.7 per cent of the total crop while the amount consumed in Khandsari production was 7.8 per cent. The production of *gur* accounted for as much as 55.5 per cent.

District figures for the United Provinces show that the bulk of the cane was utilized for the production of sugar from vacuum pan factories in North-Eastern U.P. the proportion of cane crushed by factories to total crop being 52.9 per cent.

* The figures for U. P. and Bihar for the years 1937-38 to 1939-40 which were shown in the previous Annuals were based on the data supplied by the U. P. and Bihar Governments to the Chairman, Sugar Commission, Cawnpore, but are since revised as shown in the footnote to the next paragraph in this table.

† *Vide* Printed statement showing the disposal of sugarcane crop in the United Provinces for the years 1934-42, published by the Cane Development Department, United Provinces, and forwarded to us by the Chairman, Sugar Commission, U. P. and Bihar on 13th February 1943.

Increase in Area under Cane

The report on the Marketing of Sugar has some interesting figures regarding the area under sugarcane crop, the yield per acre, the varieties of sugarcane in the different areas, etc. though unfortunately such figures are only available till the end of 1938-39 in many cases. Nevertheless, the figures are interesting as affording a study in retrospect. The average of the crop area in the years 1927-28 to 1931-32 was 2,860,000 acres. It had increased to 3,788,000 acres in 1939-40. The largest area under the cane crop was in 1936-37 when it was as much as 4,621,000 acres. Since then partly on account of the use of improved varieties and the uncertainties regarding production the cane crop has been at a lower level.

The estimated sugarcane acreage and production in states for which crop statistics are not reported is 82,000 acres under sugarcane and production in terms of cane 880,000 tons and of *gur* 86,300 tons.

The cane crop is mostly grown in irrigated areas. Except in Bengal the crop-irrigated area to the total area bears a very high proportion. Though it has to be noted that with the progress of years there have been greater efforts to use less profitable lands for the production of sugarcane. In U.P. the percentage of irrigated to total area was 74.4 per cent in 1919-21 while it had come down to 62.8 per cent in 1937-38. It is interesting to note that the decline in the percentage of irrigated to total area has come about even with a net large increase in the irrigated area to 1,370,000 acres from 955,000 acres. That is as it should be, as the industry had made rapid strides in the U.P. and Bihar since the grant of protection. In Bengal there is a decline in irrigated area from 63,000 acres to 34,000 acres. The total of irrigated cane area for all-India was 2,878,000 acres in 1937-38 against 1,861,000 acres while the proportion of irrigated to total area is 62.9 per cent in 1937-38 against 69.7 per cent.

The average yield per acre in terms of *gur* has naturally increased with the introduction of improved varieties though one would have wished that the increase in the yield was even more pronounced. The average yield for the years 1920-21 to 1924-25 was 29.0 maunds and the average for the years 1925-26 to 1929-30, 29.8 maunds per acre. It increased to 40.2 maunds in 1934-35 but there was decline to 34.2 maunds in 1939-40.

Production of Sugar by Khandsari and from Gur

Refined sugar is manufactured by three different processes in India, namely (1) direct from cane from modern vacuum pan factories,

(2) from cane by indigenous open pan factories, i.e. *Khandsaris* (through the intermediate process of *Rab*), and (3) from *gur* refined in modern refineries.

A reference has already been made to the production of sugar by the first method, i.e. direct from cane. In regard to the production of sugar by *Khandsari*, we have no definite and reliable statistics, but on the basis of the reports of the increasing operation of the *Khandsaris*, particularly in the United Provinces where the production is estimated to be about 60 per cent of the total *Khandsari* sugar production in India (there is little *Khandsari* production in Bihar). The production of *Khandsari* sugar during the year 1939-40 was about 1.25 lakhs tons, which is higher than the estimated production of the previous season. In 1940-41 *Khandsari* sugar production was the same as in 1939-40. The production during 1941-42 may be estimated at about 1,50,000 tons, and in 1942-43 at 2,14,000 tons. In 1943-44 it is estimated to be 1,00,000 tons only (*Vide* Table No. 1).

In this connection it is of interest to observe that although the estimated production of *Khandsari* sugar is so large, the figures of the amount of Excise duty collected during the last nine years would point to a very small production. The total amount of excise duty collected from the production of *Khandsari* sugar in 1934-35 and subsequent years is given below :—

1934-35	...	...	...	Rs.	77,000
1935-36	...	...	...	"	60,000
1936-37	...	...	...	"	47,000
1937-38	...	...	...	"	51,000
1938-39	...	...	...	"	59,000
1939-40	...	...	...	"	146,000
1940-41	...	...	...	"	286,000
1941-42	...	...	...	"	443,000
1942-43	...	...	...	"	157,000
1943-44 (<i>Vide</i> Table No. 21 on page xxii)	...	...	...	"	327,000

The recent increases in the amount of duty collected show that excise duty is being collected from a larger number of *Khandsaris* than before. There was a reduction in the amount of duty in 1941-42 as there was an acute shortage of cane supplies. In 1943-44 cane supplies were more plentiful and higher *gur* prices earlier in the season encouraged *Khandsari* production.

The Hon'ble Finance Member observed in his Budget Speech in February 1939, that the quantity of *Khandsari* sugar on which duty was paid was less than 2 per cent of the total estimated production

of Khandsari sugar. In order that so much sugar may not escape the duty, the definition of 'factory' was amended so as to omit any reference to the number of workers employed, and in order that no extra burden would be imposed on the small processes of sugar production the rate of excise duty was reduced from Re. 1 to eight annas per cwt.

Definition of Khandsari Sugar*

Under the Sugar Excise Duty Act, 1934, excise duty is levied on Khandsari sugar (i.e. sugar in the manufacture of which neither vacuum pan nor vacuum evaporator is employed) under Section 3(1) of the Act.

It would be of interest to note that 'sugar' for the purposes of this Act means any form of sugar containing more than ninety per cent of sucrose, and in order that the sugar may be taxable it must be produced in a factory which means any premises in any part of which any manufacturing process connected with the production of sugar is being carried on or is ordinarily carried on, with the aid of power. The sugar produced by the purely agricultural section of the Open Pan Sugar Industry where work is carried on without the aid of power is not liable to excise duty. Similarly, products like *Gur* and *Rab* which do not contain 90 per cent of sucrose are not liable to the excise duty. It is well-known that several small sized vacuum pan concerns manufacturing Khandsari sugar had in order to avoid the excise duty, so adjusted their business that they would not come

* It is a matter of regret that statistics of production of sugar by indigenous processes (collectively called Khandsari) are not available. Even the report on the Marketing of Sugar published recently does not give the figures of Khandsari production beyond a bare estimate just as we have done. The Imperial Council of Agricultural Research realised the great importance of such statistics and sanctioned a grant in November 1933, for taking a census of sugar produced by Khandsaris. At the instance of the Imperial Council of Agricultural Research, the Governments of U. P. and Punjab undertook to collect such figures for their respective provinces and we understand that during the year 1933-34, according to this enquiry, 80,000 tons of sugar were manufactured by Khandsari in U. P. and 4,000 tons in the Punjab.

The rate of excise duty on Khandsari sugar which was 0-10-0 per cwt. from 1st April 1934, to 27th February 1937, was increased to Re. 1-5-0 per cwt. from 28th February 1937. It was reduced in April 1937, to Re. 1 per cwt. with retrospective effect from 28th February 1937. From 28th February 1939, the excise duty on Khandsari sugar was reduced to Annas 8 per cwt., but along with it the definition of "factory" in the Sugar Excise Duty Act 1934 was also amended with a view to make a larger quantity of Khandsari sugar liable to excise duty.

The definition of "factory" was amended by Clause (3) of the Indian Finance Act, 1939, and any reference to the number to twenty or more workers was omitted therein. (For the amended definition see the Sugar Excise Act in the 'Sugar Industry at a Glance').

When the excise duty on factory sugar was increased from Rs. 2 to Rs. 3 per cwt. with effect from 1st March 1940, the duty on Khandsari sugar was kept at the same level, i.e. 8 annas per cwt.

within the provision of the definition of a 'factory'. With effect from 28th February 1939, however, under the amended definition of 'factory' they are liable to excise duty at the rate of 0-8-0 per cwt.

Position of Khandsari Manufacture

No minimum price has been fixed by the Governments of U.P. and Bihar for cane purchased by Khandsari factories. The price paid by Khandsari depends upon the locality. During 1939-40 some Khandsaris in U.P. purchased cane at 0-6-5 to 0-7-11 per maund while those in Bihar at 0-6-9 per maund. This compares very favourably with the minimum prices paid by the factories in U.P. and Bihar. Besides the Khandsaris have not to pay any cess which the factories have to pay at the rate of 0-0-6 and have not to incur other expenses by way of commission to co-operative societies and railway freight on out-station cane. The total cost of manufacture of Khandsari sugar may be taken at Re. 1 to Re. 1-4-0 per maund.* The Tariff Board also has given interesting figures on the cost of production of sugar by Khandsaris and open pan concerns. The average price of Khandsari sugar is about six to eight annas lower than the prices realised by factory sugar.

The Khandsari industry appears to be at an advantage in the interior areas, far removed from factories where cane is available cheaply and which cannot be disposed of in any other way. Amongst other advantages may be mentioned the following:—(a) negligible transport and other charges on cane, (b) saving of 0-0-6 per maund on cane cess, (c) saving of Rs. 2-8-0 per cwt. in sugar excise duty, (d) less transport charges on sugar which is consumed in areas in close vicinity, (e) some preference for Khandsari sugar by orthodox people.

The Khandsari sugar factories can be helped by the Government by improvement of the equipment and introduction of improved types of crushers, juice-boiling bels, etc.; by improvement of the methods of manufacture in order to improve the quality of the finished product; by better facilities for getting the necessary equipment on hire and by better marketing facilities. The Imperial Council of Agricultural Research sanctioned a grant of Rs. 1,67,380 for the establishment of a Sugar Research Testing Station for the indigenous system of gur and sugar manufacture for a period of 5 years ending in November 1941. A small grant was also made to the Government of Bihar for investi-

* The Report on the Marketing of Sugar estimates the approximate costs of a typical of a Khandsari concern in Rohilkhand (U.P.) at Re. 1-1-8 per maund for khand recovered and rab treated, 0-3-7.

gation into the possibilities of manufacturing Khandsari sugar by single pan method.

Importance of Sugar industry in the National Economy

The above figures of production will show the importance of this industry at the present time. In this connection it is of interest to note that this Industry is at present the *second largest* industry in India, the Cotton Textile Industry being the largest, and is owned, managed and controlled to a large extent by the nationals of the country. It is also important to remember a peculiar feature of this industry that the prosperity of about 20 million agriculturists is linked up with it. Taking into consideration these facts and also that the development of the Industry has enabled the country to stop the huge annual drain of about Rs. 16 crores to foreign countries, by producing the requisite quantity of sugar within the country itself with such rapidity, and the possibility of production of sugar from the existing equipment of factories in quantities larger than the present estimated consumption, *it is essential to create conditions for a stoppage of all imports of sugar into the country, and of expansion of markets within the country and outside the country to as large an extent as possible.*

So long as the war continues the problem is, however, not of such great importance as with the loss of Java supplies and the difficulties in freight, there is no foreign competition. As a matter of fact, Indian sugar has assumed great importance as with the loss of the Philippines and Java, this country is the only other important producer with Cuba. With the termination of the International Sugar Agreement and the need for sugar in great quantities from the neighbouring countries, there is not enough sugar for internal consumption and the large Military demands both internal and overseas.

Consumption of Sugar

The present annual consumption of sugar is roughly estimated by us to be about 10 lakhs tons per year (our *per capita* consumption is very small as compared with most of the other countries of the world, as a glance at Table No. 6 in the "Sugar Industry at a Glance" will show). This consumption, however, is not steady and varies from year to year with the rise and fall in the price of sugar, with the changes in the economic conditions, etc. (For detailed information regarding price level and consumption of sugar in India, *vide* Mr. M. P. Gandhi's "Indian Sugar Industry—Its Past, Present and Future," 1934, p. 382).

But we will not be far wrong if we estimate the annual consumption of sugar in India at 10½ lakhs tons in 1938-39, 10½ lakhs tons in 1939-40, 11 lakhs tons in 1940-41, 10½ lakhs tons in 1941-42 and 11 lakhs tons in 1942-43. The consumption of sugar in 1938-39 was restricted by shortage of production in the U.P. and Bihar Provinces in that season, while in 1939-40 the high level of prices for sugar, consequent on this fixation of high level of prices for sugarcane, actively discouraged consumption. So that even with plentiful sugar supplies the consumer was not encouraged to eat more sugar. In 1940-41, however, the story was different. With a large accumulation of stocks and fairly cheap sugar there was more demand so that sugar consumption during 1942-43 was perhaps at the highest level for some time.

In 1941-42 consumption was badly affected by the difficulty in regard to transport facilities and high prices. A smaller production and great demand would, it was feared, result in scarcity. But the large carry forward from 1940-41 was helpful. The price of sugar is, of course, higher than the last 2 or 3 years owing to the increased price of cane. In 1941-42 and 1942-43 the price was on an average about Rs. 14 per maund.

While on the subject of consumption of sugar it would perhaps be incorrect to say that there has been an increase in the total consumption of this sweet commodity as with the large demand from the defence services the net available production for civilian consumption was not very much more. And the introduction of rationing in the important urban centres has perhaps retarded consumption. But there was a diversion of demand for sugar from *gur* for sometime in the early months of the year and also the inflationary conditions resulted in the inclusion of a certain class of consumers who had never taken to sugar consumption before. Thus, anomalous as it would appear, there has been a general increase in consumption though the *per capita* consumption has been poorer. This increase in the habit of consuming sugar is particularly important for the sugar industry as it could be definitely expected that after the war internal consumption of sugar would be higher apart from the increase due to the higher standard of living with the efforts made by the authorities and the industrialists to improve economic conditions in this country. The Army is now one of the main consumers and has accounted for the increase in production in the season 1942-43. In order to reduce the consumption of sugar by the Army, a *gur* ration was also introduced for them.

The consumption of sugar in 1942-43 and 1943-44 has been retarded due to introduction of rationing and difficulties in distribution in rural areas.

*Value of imports of sugar and revenue from import duty
in the last 21 years*

The decreasing measure of dependence of this country on outside supplies of sugar will be clearly noticeable from Table No. 42 in the "Sugar Industry at a Glance." Besides saving a large amount of money from being drained out of the country, the Government of India is deriving benefit out of its policy of protection pursued towards the industry because the income from sugar excise duty is now one of the important sources of revenue and has served to replace the loss in the revenue from import duty on sugar. If ever there was increase in imports during the past five seasons it was due to the shortage of production in the country.

*Present protection to the industry to continue for the
duration of war ?*

The question of protection fades into insignificance at the present moment. With the loss of Java supplies Indian sugar has no competitor. However, the broader policy regarding the need for estimating the quantum of protection cannot be ignored. For the duration of the war it is expected the Government of India will afford the existing measure of protection. The present duties on sugar are due to expire on March 31, 1946. The emergency surcharge of 20 per cent levied in 1942 still continues. The total duty thus is Rs. 11-1-7 1/5 per cwt. (including excise duty of Rs. 3 per cwt.).

Protection to the industry and consumers

We discussed at great length in our 1938 Annual the result of the policy of discriminating protection adopted by the Government and came to the conclusion that the policy of liberal protection to sugar proved to be an unqualified success in that it was responsible for the rapid strides that the industry made in the early thirties. As a result of the phenomenal development of the sugar industry in recent years this country is now self-sufficient in regard to the requirements of sugar. The Tariff Board also came to the conclusion that the "ordinary" consumer has, so far, no cause for any complaint against the policy of protection and indeed has every reason to be satisfied. The Tariff Board also observed on page 125 of their report that, "even if in consequence of a rise in the cost of manufacture, due to an increase in the cost of raw material, the selling price of sugar is raised, it seems impossible that the consumer will have to pay more than he had before

the advent of protection." The shortage of sugar experienced in 1938-39 and the abnormally high minimum prices for sugarcane in 1939-40 caused an undue rise in prices of sugar. With the reduction in the minimum price for sugarcane in 1940-41 season and the accumulation of large stocks prices were again normal but factors beyond the control of the industry have again been responsible for the high level of prices during the last 2 or 3 years. There is every reason to hope, that with the introduction of the manufacture of power alcohol and a policy of regulation of production both of sugar and sugarcane, the Indian consumer will not have to regret at any time the generous policy of protection pursued towards the sugar industry.

Protection to the advantage of the country

After a careful appraisal of various relevant factors, e.g. the magnificent progress of the industry, the almost complete independence we have achieved, the improvement in the condition of the millions of cultivators as a result of better returns from the cultivation of the cane crop, the relief afforded by the development of this industry in the severe problem of unemployment, particularly amongst the educated and technical men, the subsidiary industries which are about to spring up, the scope for profitable development which was afforded to indigenous dormant capital during a period of acute world depression, the development witnessed in the village industry of manufacture of *gur*, which is a very nutritive and unique article of direct consumption by millions of our people, as can be seen from the progressive increase in the production of *gur*, and the confidence established about India's ability in the development of industrial enterprises if suitable opportunities are created, we feel that any frank and unbiassed person cannot help arriving at the conclusion that the development of the Indian Sugar Industry has completely vindicated the policy of protection (adopted by the Government of India for the last decade or so) which has genuinely revolutionised the industry and has indeed proved a blessing to the country and made it possible for the people to get their supply of sugar, even in limited quantities due to rationing in various areas, during the war period and to supply sugar for the Army also. The fate of the people, in the absence of this indigenous industry, in having to get sugar from abroad, can be easily imagined.*

* For a detailed academic discussion in regard to the success of the policy of protection in the case of the sugar industry *vide* Chapters 2, 3 and 4 of Mr. M. P. Gandhi's "Problems of Sugar Industry in India—Scope and Prospects of Reorganisation," being a thesis submitted for the Degree of Doctor of Letters of the Benares Hindu University, which is expected to be published in 1945.

IMPORTANT LEGISLATIVE ENACTMENTS

Imposition of Excise Duty from 1934 pertaining to Sugar

On 1st April, the Government of India imposed an excise duty of Rs. 1-5-0 per cwt. (roughly equivalent to about 0-15-4 per md.) on factory sugar produced in British India by the vacuum pan process (modern system) and 0-10-0 on sugar produced by the open pan process (indigenous or Khandsari system) in spite of unanimous and strong protests from all quarters. No duty was imposed on Palmyra Sugar (i.e. sugar manufactured from Jaggery obtained by boiling the juice of the Palmyra palm produced largely in Madras) owing to the conviction of the Government that the Industry would be severely hit as a result of the imposition of the duty.

Increase in Excise Duty from 1937

On the 28th February 1937, the Government of India increased the excise duty on factory sugar to Rs. 2 per cwt. (roughly equivalent to Rs. 1-7-6 per maund) and to Re. 1 per cwt. on Khandsari sugar. There was considerable opposition to this move of the Government of India and after very heated debates (on the floor of the Indian Legislative Assembly and the Council of State) in March 1937, the Finance Bill incorporating the Government's proposal for an increase of the excise duty on sugar was thrown out in the Assembly. Notwithstanding this, the Finance Bill was later certified by the Governor-General-in-Council and passed into an Act in utter disregard of and direct opposition to the wishes of the Indian Legislative Assembly for the sake of increasing the revenues from the manufacture of sugar on the ground that the development of the industry was responsible for the drying up of the Government's revenue from import duty, forgetting or ignoring that this was a foregone conclusion, if protection to the industry was successful, *the only fault of the industrialists being that they developed the industry far more rapidly than was imagined by the Government.* Far from their being complimented on this remarkable achievement and far from their action being appreciated, they were penalised as it were, by subjecting this industry to such a heavy taxation (the increase in duty being more than 50 per cent).

Sugarcane Act, 1934

On 1st May, 1934, the Sugarcane Act* also received the assent of the Governor-General. The Sugarcane Act was intended to secure

* Not printed. Act repealed in U. P. and Bihar, in 1938. Rules issued under this Act are superseded by Rules made under provisions of the Sugar Factories Control Act, in U. P. and Bihar in 1938.

to the growers of sugarcane a fair price for their produce, to regulate the price at which sugarcane intended to be used in the manufacture of sugar may be purchased by or for factories, etc. It provides that a local Government may declare any specified area to be a "controlled area" and that it may prohibit the purchases in such area of sugarcane intended for use in any factory otherwise than from the grower of the sugarcane or from a licensed purchasing agent. It also empowers of the local Government (subject to the control of the Governor-General-in-Council) to fix by notification in the local Official Gazette a minimum price or minimum prices for the purchases in any controlled area of sugarcane intended for use in factory.

Sugar Industry (Protection) Act extended upto 1946

The Sugar Industry (Protection) Act, 1939, was passed continuing protection to the Industry at a reduced rate of Rs. 8-12 per cwt. (Rs. 6-12 per cwt. import duty, plus Rs. 2 per cwt. excise duty), from 1st April 1939.

The excise duty having been increased from Rs. 2 per cwt. to Rs. 3 per cwt. from 1st March 1940, the total import duty became Rs. 9-12 per cwt. from 1st March 1940. From 1st April 1942 the protective duty was continued for a period of 2 years ending 31st March 1944, and again for 2 years ending 31st March 1946, and 20 per cent surcharge on the import duty was also imposed. Thus the total import duty works out to Rs. 11-1-7 1/5 per cwt. (including the excise duty of Rs. 3 per cwt.) at present and upto 31st March 1946.

Change in Excise Duty on Khandsari Sugar

With effect from 28th February 1939, the excise duty on Khandsari sugar was decreased to 8 annas per cwt. by an amendment made under clause 3(b) of the Indian Finance Act, 1939.

Further increase in Excise Duty in 1940

With effect from 1st March 1940, the excise duty on factory sugar was increased to Rs. 3 per cwt. (roughly equivalent to Rs. 2-3-3 per maund). The excise duty on Khandsari sugar was kept at the same level, namely 0-8-0 per cwt.

These amendments were carried out under Clause 3(b) of the Indian Finance Act, 1940.

Prohibition of Export of Sugar by Sea

As a result of the ratification of the International Sugar Agreement, the Government of India prohibited the export of sugar from

India by sea, except to Burma, for a period of five years ending in August 1942.

Ban on Export of Sugar by Sea Lifted in September 1942

The International Sugar Agreement expired in August 1942, and was not ratified for any further period by the Government of India, in response to public opinion. Thus, with effect from 1st September 1942, India is free to export sugar to any destination by sea or land.

Minimum Cane Price fixation in the Provinces and States

In the 1941-42 season the Government of Madras fixed Rs. 8 per ton as the basic minimum price for the purchase of sugarcane (all varieties) in the controlled area of Hospet. A schedule was also laid down, i.e. when the average price per ton exceeded Rs. 180 the minimum price of cane would be increased at the rate of 9.6 pies for each ton of foreign variety of cane, and 8.6 pies for each ton of local variety, for every rupee by which the average price of white sugar exceeded Rs. 180. Thus, if the price per ton of white sugar, excluding excise duty and sales tax but including commission to selling agents, came to Rs. 200, the price for foreign varieties of cane would be Rs. 9-1-7.2 and for local variety, Rs. 8-15-11.2, and so on.

The Government of Bombay, Bengal and the Punjab did not fix any minimum price of cane in their Provinces in 1942-43. Bengal and Punjab fixed minimum prices in 1943-44 which were higher than U.P. and Bihar.

The Mysore Government fixed a minimum price with a sliding scale in 1941-42, but not in 1942-43 as the price paid by the factory was considered fair.

Cess on cane of 0-0-6 per maund in U.P. and Bihar from 1939-40

The Governments of U.P. and Bihar levied a cess with effect from the commencement of the 1939-40 season of 6 pies per maund on all sugarcane purchased by factories in addition to the cane prices. The revenue derived from the cane cess in U.P. in the financial year 1938-39 was Rs. 27,81,280 and in 1939-40 Rs. 40,04,350. The revenue derived from the cess in Bihar was Rs. 14,34,000 in 1938-39 and Rs. 17,86,000 in 1939-40. The cess was imposed under Section 29 of the Sugar Factories Control Act of U.P. and Bihar. The object of the imposition of the cess was development of cane cultivation. The revenue from this source not having been properly assigned, no details are available of exactly how it was spent, but large sums are spent annually

on sugarcane and its development and also on roads more particularly in the vicinity of factories.

The Sugar Commission regretted its inability to furnish information regarding the amount of sugarcane cess realised by Bihar in 1941-42, and how the amount was spent.

Cane cess reduced to 0-0-3 per maund in 1940-41

The cess continued at the same rate of six pies per maund in 1939-40. Early in 1940-41 season a reduction in the rate to three pies per maund was announced to enable mills to pay the additional cess levied for repayment of excise duty. Towards the end of December 1940 the Governments of U.P. and Bihar increased the cess to six pies per maund with a corresponding reduction in minimum prices. The increase in the cess was made with a view to giving assistance to ryots who had surplus supplies of cane. The reduced cane prices were operative in Bihar throughout the season while they were operative in U.P. till March 23, 1941. As mills were paying an additional cess of six pies per maund towards payment of the excise duty in 1941-42 also, there was no change in cesses in 1941-42.

In 1942-43, the cess was 0-0-3, and in 1943-44, 0-1-0. For details see Table No. 16 and subsequent paragraphs on pages xvii in "The Sugar Industry at a Glance."

U. P. and Bihar Sugar Control Board

The Sugar Control Board of U. P. and Bihar continued to function during the year and had several meetings at Lucknow and Ranchi. The term of appointment of the inter-provincial Sugar Control Board of U. P. and Bihar having expired in June 1943, a new Board for the two Provinces was appointed on 10th August 1943, for a period of one year.

The personnel of the present Sugar Control Board is given in the "Sugar Industry at a Glance" (page xli).

Sugar and Sugar Products Control Order, 1943, and Gur Control Order, 1943

During July 1943, the Government of India issued a Sugar and Sugar Products Control Order, 1943, which supersedes the Sugar Control Order of 1942. The text of the latest Order, with the latest amendments is given in *The Sugar Industry at a Glance* (page xlix).

A Gur Control Order was also passed in July 1943. Text is given on page xlix.

Extension of U.P. and Bihar Sugar Control Acts till 1946-47

The U.P. and Bihar Sugar Control Acts are in force up to 30th June 1944, i.e. till the end of the crushing season 1943-44. With a view to maintain continuity, the U.P. and Bihar Governments published draft bills in September 1942, and March 1943, to extend the Acts up to the end of the crushing season 1946-47. These bills were passed, and the life of the Control Acts has been extended till the close of the 1946-47 crushing season.

Miscellaneous Legislation in 1942 and 1943

Among other legislative measures, we must refer to the various amendments made to the Northern India Sugar (Excise Duty) Order, 1938, and the Sugar (Excise Duty) Order, 1934, by the Government of India, and to the Gur (Futures and Options Prohibition) Order, 1942, of the U.P. Government, the restriction on movement of gur introduced by the U.P. Government, on 11th December 1942, prohibiting the carrying of *gur* by rail or road or river from any place within the limits of the Meerut and Rohilkhand Divisions, the Bihar Power Alcohol Act, 1942, the Government of India Order prohibiting the manufacture of "Bura" and "Candy" sugar, without a special permit from the Sugar Controller for India, the Notification restricting transport and sale of molasses in the United Provinces, the Fuel Alcohol Order enforced by the Government of India in February 1943, etc.

A Sugar Temporary (Excise Duty) Ordinance, 1943, was also issued in November 1943. (Text given on page lvi.) Other orders include Factories (Control of Dismantling) Ordinance, 1943, U.P. Gur (Movement) Control Order, 1943, Bihar Gur Price and Control Order, 1943, etc.

Non-varying Minimum Price of Cane for 1941-42, 1942-43 and 1943-44 Seasons in the United Provinces and Bihar

The principle of fixing non-varying fortnightly minimum prices of cane was adhered to in the 1941-42, 1942-43 and 1943-44 seasons also. At first it was announced that the minimum price for the whole season, 1941-42, was to be 5 annas per maund as against $4\frac{1}{2}$ annas in the 1940-41 season. The relative selling price for standard sugar was fixed at Rs. 9-10-0 per maund and it was laid down that deferred payments were to be made to growers if the selling price exceeded Rs. 9-12 per maund. In accordance with the price fixed for sugar under the Sugar Control Order issued in April 1942 for the sugar produced in the 1941-42 season, minimum prices payable for cane worked out to 7 annas per maund,

and the cultivators in the U. P. and Bihar were paid accordingly during the middle of the year 1942. The minimum price for 1942-43 was first fixed at eight annas per maund but later on it was increased to 10 annas per maund. With the increase in the price for sugarcane the price for sugar also was increased by Rs. 2-5-0 per maund.

The minimum price for cane for 1943-44 was fixed at 0-12-0 per maund in U. P. and Bihar, and the price of sugar was increased by the Sugar Controller by 0-13-0 per maund to 14-13-0 for 24 D, which is considered to be Standard Sugar (*vide* Table No. 16, page xviii and page xxxi in the "Sugar Industry at a Glance").

Sugar Refined from Gur

A different method of producing sugar is by refining from *gur*. The production of *gur* refined from sugar is naturally dependent on the relative cheapness of *gur*. Thus in the years when there was great competition from cane factories and there was large production of sugar with abundant cane supplies, production of refined sugar was rather small. Again, in years when there was acute shortage of sugar and *gur* prices were relatively higher, refined *gur* sugar was small in output. There was a decline in the total output from 1932-33 to 1938-39. There was a rise in 1939-40 and 1940-41 but there has been a reduction again the last two seasons owing to the high prices for *gur* and the shortage of sugar and the low controlled prices at which the refined commodity was sold.

The production of sugar by refining *gur*, in India, in 1942 was lower than in any former year, being only 13,400 tons against previous low record of 14,200 tons in 1939. In 1943, it was still lower as 9,140 tons. (See next table). The failure of the cane crop in 1941-42 reduced the supply of *gur* in the country, while its demand increased owing to shortage of sugar. *Gur* therefore became scarce and dear and the production of sugar from *gur* dropped heavily in 1942. The same thing was true in 1943.

There were eleven refineries working in this country in the year 1942, four in the U. P., one in Bengal, five in Madras and one in the Indian States. Of these refineries one was a pure refinery in U. P., three in Madras and one in the Indian States. The rest were cane sugar factories refining *gur*. In 1943, only five worked, one in the U. P. and four in Madras.

In the United Provinces the quantity of *gur* melted was 3,600 tons in 1942 against 59,900 tons in 1941. In 1943 it was only 720 tons. Sugar manufactured was 2,100 tons against 31,900 tons and molasses obtained

1,200 tons against 24,700 tons. In 1943, it was only 450 tons. Recovery of sugar per 100 tons *gur* was unchanged at 58.3 per cent even with the small quantity of sugar produced. In 1943 it was 62.50 per cent. Recovery of molasses per 100 tons of *gur* was lower at 33.3 per cent against 41.2 per cent.

In the rest of India *gur* melted was 13,100 tons against 27,400 tons in 1941. Sugar manufactured was 11,300 tons against 16,600 tons and molasses obtained 6,400 tons against 7,300 tons. Recovery of sugar and molasses were both higher at 62.4 per cent and 35.4 per cent respectively.

In previous years the U. P. was the main producer. In 1942, however, the output of U. P. was only a fraction of the total output. While the share of the U. P. in 1942 was 2,100 tons out of 13,400 tons. In 1941 U. P. had to its credit 31,900 tons out of the total output of 48,500 tons. In 1943, it was only 450 tons.

The recovery of sugar per 100 tons *gur* was higher at 61.8 per cent in 1941 against 55.6 per cent in 1942, and in 1943, it was 64.60 per cent.

Production of Sugar and Molasses in India by Gur Refineries

Particulars	1937	1938	1939	1940	1941	1942	1943
Number of Gur refineries operating ...	9	10	10	10	14	(Est.) 11	5
Gur melted tons ...	32,000	26,700	23,300	50,800	87,300	21,700	9,140
Sugar manufactured tons ...	19,500	16,600	14,200	29,600	48,500	13,400	6,370
Molasses obtained tons ...	10,100	8,800	6,400	15,800	32,000	7,600	2,680
Recovery of sugar per 100 tons Gur ...	60.91	62.17	60.94	58.26	55.60	61.80	64.60
Recovery of Molasses per 100 tons Gur ...	31.56	32.95	27.46	31.10	36.7	35.0	27.18

Present position of Companies

The existence of prosperous conditions in the sugar industry in the last two years is to be welcomed especially as sugar producers experienced great difficulty in the four seasons ending 1940-41. The sugar industry has been in a bad plight ever since 1937-38 and it is only in the last two seasons, with the slight increase in prices and the removal of restriction on the production of sugar, that sugar mills have been able to report a higher level of earnings. The existence of prosperous conditions, referred to above, cannot, however, be compared to the conditions prevailing in other industries, as has been pointed out on earlier occasions. The coal and sugar industries have not benefited to any

extent from the war conditions and it is only recently that there has been a greater demand for these products and those who are engaged in these two industries have benefited to a certain extent. In view of the fact that the sugar industry is still in its early stages and that it has not been possible to build any reserve on account of the rapid expansion, a liberal policy should be adopted in respect of reconstruction in post-war years. The drastic control of prices for both sugarcane and sugar has restricted the scope for an increase in earnings. It is generally felt that Government's policy is not calculated to maximize production of sugar. This policy also prevents companies from earning large profits.

The profits of companies for the last two seasons are impressive. Four companies reporting during the current year have been able to earn as much as Rs. 46.37 lakhs against Rs. 13.99 lakhs for the same number of companies reporting in 1943 and Rs. 20.83 lakhs in 1942. As usual, the bulk of the increase in earnings has been taken away by the provision for taxation which is as much as Rs. 30.04 lakhs against Rs. 4.57 lakhs and Rs. 3.6 lakhs respectively in 1944, 1943 and 1942. The shareholders have received Rs. 9.7 lakhs by way of dividends against Rs. 5.25 lakhs and Rs. 6.75 lakhs in 1944, 1943 and 1942 respectively.

The conditions in the season 1942-43 and the results of the Cawnpore Sugar Works, Ltd., make very interesting reading. The earnings would have made much better showing but for the difficulties in respect of cane supplies. Though more cane was available in 1942-43 than in 1941-42, total crushing was still lower than in the season 1939-40 and 1940-41. Cawnpore Sugar Works especially is fortunate in achieving a higher recovery percentage unlike other companies. At Marhowrah factory 17,06,341 maunds of cane against 6,28,320 maunds in 1941-42 were crushed and the recovery percentage was 12.22 per cent against 11.6 per cent. At the Gauri factory the quantity of cane crushed in 1942-43 was 19,11,964 maunds against 11,29,962 maunds in 1941-42 and the recovery percentage was 11.1 per cent against 10.95 per cent.

In the result, the net profit before providing for taxation and depreciation is considerably higher at Rs. 18,88,878 against Rs. 7,46,407 for 1941-42. Amount set aside for depreciation is lower at Rs. 1.68 lakhs against Rs. 2 lakhs; provision for taxation is as much as Rs. 12.5 lakhs against Rs. 3,25,150. No large provision could be made to reserves and the dividend was increased only by 25 per cent from 15 per cent. Even in ordinary times this company has been able to pay a dividend of as much as 30 per cent and the earnings in the year ended December 1934 were as much as Rs. 10,26,663.

A glance at the Table on page 77 will show at a glance the dividends declared by companies in the last few years.

*Total Consumption of Sugar including Gur (Raw Sugar)
in India*

Before we deal with the various problems facing the sugar industry and the progress made in respect of them during the last season, we will refer to one more question, i.e. the total consumption of sugar including *gur* in India. In the previous pages, we have referred to the question of consumption of factory sugar and Khandsari sugar but not of *all sugar* in India. Apart from this quantity (estimated by us at about 11 lakhs tons during 1940-41 and 10½ lakhs tons only during 1941-42) of refined sugar, India consumes a very large quantity of *gur*. The total annual production of *gur*, all of which is consumed in the country, is now about 35 lakhs of tons. Figures of net production of *gur* from 1930-31 to 1942-43 are given in Table No. 46, on page xxviii.

Per Capita consumption of Sugar and Gur

In Table No. 5, in the "Sugar Industry at a Glance," we have given statistics of the *per capita* consumption of sugar as well as *gur*, for the last 10 years. The importance of the *gur* manufacturing industry—although essentially a cottage industry—can be gauged from this table. It must be noted that the quantity of *gur* consumption in India is about 3 times that of refined sugar. While the *per capita* consumption of white sugar in India is low, we must not ignore the figures of consumption of *gur* when comparing the *per capita* consumption of sugar in India, with other countries of the world.

The production of *gur* in India in 1942-43 has been estimated at 35 lakhs tons as compared with 28 lakhs tons in 1941-42. (*Vide* Table No. 46).

Although the main subject of our survey here is the problem of refined sugar, we cannot ignore the fact that it represents about one-fourth only of the total consumption of sugar (*gur* as well as sugar) in India. There is no necessity, however, of making a detailed reference to the subject of *gur* manufacture as it does not constitute a problem due to its being a commodity for domestic consumption only, there being neither any import nor any export of *gur*. Thus *gur* has to face no competition from any foreign country.

Effect of Sugar Prices on its Consumption

We have observed before that the consumption of sugar in the country varies from year to year with the price of sugar, the economic

*Capital and Net Block of Sugar Companies, and Dividends
since 1935*

Name of Sugar Factory	Paid-up Capital with De- bentures*	Net Block	DIVIDENDS									
			1935	1936	1937	1938	1939	1940	1941	1942	1943	
	Rs.	Rs.										
Balarampur ...	28,00,000	23,94,169	10	10	3½	2½	Nil	Nil	Nil	Nil	5	
*Basti ...	18,00,000	18,94,611	15	25	15	15	12	5	10	20		
*Belsund ...	20,49,950	14,47,872	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil		
Belapur ...	37,59,800	36,07,486	24	16	14	14	20	20	14	12		
*Bharat ...	6,25,000	4,91,832	Nil	7½	10	5	5	Nil	5	7½		
Buland ...	24,00,000	22,69,814	...	5	6	11½	11½	12½	17½	22½	22½	
*Carew ...	65,00,000	56,14,075	12½	12½	10	10	Nil	Nil	Nil	Nil	12½	
*Cawnpore ...	25,00,000	27,66,414	25	10	5	5	2½	2½	15	15	...	
Champarun ...	18,00,000	19,47,896	10	20	5	5	7½	2½	15	15	...	
Deccan Sugar and Abkhari ...	23,60,000	31,02,528	35	20	10	10	10	5	10	...	...
*East India Distilleries & Sugar Factories...	£314,780	£3,09,055	10	10	5	10	15	12½	10	...	...
Durbhanga ...	26,00,000	18,19,829	...	...	...	...	...	...	12½	10	...
*Deoria ...	8,99,452	10,33,906	...	...	...	5	5	Nil	5	7½	...
Ganesh ...	8,00,000	8,25,407	Nil	10	5	5	2½	Nil	12½	...	...
Ganga ...	8,52,841	9,36,912	...	...	...	9	18	12	20	20	...
*Gaya ...	9,84,200	11,27,452	8	8	8	8	8	8	8	...	...
*Mahaswastika ...	6,50,000	5,42,176	...	...	...	Nil	Nil	Nil	...	...	...
Modi ...	12,00,000	16,22,542	10	9	10	7	12	12	15	...	...
*Mysore ...	30,79,280	21,79,280	11½	15	10	15	15	20	20	20	20	
*Nawabganj ...	19,46,030	19,83,186	10	10	5	11	10	5	12	...	...
New Savan Sugar ...	11,00,000	8,00,000	Nil	10	Nil	Nil	Nil	Nil	10	7½	12½	
*New India ...	14,12,700	12,68,372	...	...	...	Nil	Nil	Nil	Nil	Nil	...
Punjab Purtabpore ...	11,93,642	26,17,247	15	20	15	15	6	Nil	10	10	...	
	15,00,000	16,02,376	Nil	7½	Nil	Nil	Nil	Nil	5	Nil	...	
*Ramnugger ...	24,00,000	28,99,038	...	...	...	Nil	Nil	Nil	Nil	...	...
Raza ...	15,00,000	20,28,609	6	10	7½	12½	12½	12½	17½	22½	22½	
*Ryam ...	10,97,400	7,10,987	15	10	Nil	Nil	Nil	Nil	Nil	5	20	
*Samastipur ...	17,19,000	11,94,577	Nil	Nil	Nil	Nil	Nil	Nil	Nil	5	...	
*Shree Sitaram ...	10,95,462	10,20,378	6½	Nil	10	10	...	5	7½	12½	15	
*Sitalpur ...	13,01,310	12,05,659	Nil	8	Nil	2½	2½	Nil	Nil	5	...	
*South Bihar ...	13,25,000	16,79,861	12½	15	15	25	10	9	15	...	...
*Upper Ganges ...	11,99,900	10,38,095	Nil	5	7½	7½	10	Nil	17½	...	...

* Only those marked with asterisks include Debentures.

condition of the people and the price of *gur* etc.* We might observe here that, contrary to the general belief, there has not been a notably large variation in the total consumption of sugar in the country from year to year, depending upon the rise and fall in the internal price of sugar in the country. Doubtless in a year in which the price of sugar has witnessed a considerable rise or fall, the consumption has certainly shown a tendency to fall or rise, but as we observed before, there has been no commensurately large increase or decrease. For instance, in the year 1925-26, when the yearly average price of Java Sugar at Calcutta was Rs. 10-15, the estimated consumption of sugar was 1,011,000 tons, and in 1931-32, when the price fell to Rs. 10 the consumption was only 9,82,000 tons.

From 1932-33 to 1936-37, there was a progressive reduction in the price of Indian sugar and in 1936-37 it reached its lowest level—lowest for the last quarter century for which we have statistics available, or perhaps for a longer period still.

As pointed out above, there has not been any corresponding increase in the consumption of sugar with the increase in the consumption of *gur*. It is noteworthy that even with the decline in prices in the past few years there has not been any appreciable increase in the consumption of sugar. Instead, there was a tendency for consumption in 1938-39 to contract with the sharp increase in prices in that season. Within limits, doubtless, a fall in price will stimulate consumption by bringing

* Messrs. P. N. Nayar and P. S. B. Pillai of the Imperial Institute of Sugar Technology, Cawnpore, contributed a very informative article on 'Relationship of Demand and Price of Sugar' to the 'Sankhya,' *Indian Journal of Statistics*, in December 1942. For the purpose of their examination the authors selected a period of 13 sugar seasons between 1927-28 and 1939-40. Conclusions arrived at by the authors are given below :

"(1) During the period under review (from 1927-28 to 1939-40) there was no significant correlation between total annual demand and the annual average price of sugar expressed in terms of money.

(2) There was a strong and significant negative correlation between annual *per capita* demand and the average annual price expressed in terms of the general price of commodities.

(3) The *per capita* demand increased by 0.019 lb. for a decrease of one anna per maund in the relative price, and also for the same relative price, it decreased by 0.81 lb. annually.

(4) The demand for sugar was inelastic, the elasticity of demand varying from 0.26 to 0.55 in different years.

(5) The annual *per capita* expenditure on sugar increased as the price increased and *vice versa*.

(6) The elasticity of demand was higher for higher prices of sugar than for lower ones; for the same price, the elasticity of demand has been slowly decreasing with time.

(7) The quantity of *gur* consumed and the quantity of saccharine imported into India have no significant effect on the demand for sugar.

(8) The demand for sugar decreased slightly, but not significantly with increased business activity."

it within the reach of the poorer classes also, but a slight increase does not make a tremendous difference, particularly as those who are well-placed will have their usual quantity of sweets whether the sugar sells at 0-4-0 or 0-6-0 per lb. Even so, we do feel that in a country like ours where the majority of the people are very poor and who are compelled to repress their natural inclinations of consumption of more sugar due to its high price, *there is an excellent opportunity for the expansion of the consumption of sugar with the lowering of price.* Apart from the increase in consumption which will be of benefit to the factories it will also enable the people to improve the standard of living by taking such nutrition as is available from sugar in larger quantities and in accordance with International standards. We strongly recommend that the industry should keep this aim prominently before it and should endeavour to reduce the price of sugar to the level of about Rs. 7-8 per maund and thus encourage the consumption of sugar in the country for the benefit of the people, particularly as it is an energizing food, rich in carbohydrate of which there is a shortage in the country. Table No. 6 gives our *per capita* consumption of sugar which compares very unfavourably with other countries and indicates the necessity of an increase therein at an early date.

As observed above, there are other factors too which influence the consumption of sugar in the country, viz. the economic condition of the ryots and the general populace, the price at which *gur* (the consumption of which is now about 3 times as large as that of sugar) is sold at various places in the country, the distributive arrangements for retail sales of sugar at all times of the year, etc., etc.

The portion "Sugar Industry at a Glance", is instructive and upto date. Refer to it when you can.

When you have a little leisure, turn to the varied advertisements. They have considerable educational value and contain useful information of interest to you, and will be of assistance to you.



PART II

Present Problems of the Sugar Industry and Its Future Prospects

NEED FOR CONSOLIDATION AND RE-ORGANISATION

We have referred in detail in the earlier pages to the vicissitudes of this industry during the last two seasons. In the succeeding pages we will refer briefly to the need for consolidation and re-organisation of the industry with a view to ensure production of cheap sugar in increased quantities in the country. The recently constituted Central Sugar Committee will, we hope, take suitable measures at an early date for achieving that end for then alone it will be possible for India to compete in due course with sugar produced in other important countries of the world. The improvements in the methods of cultivation and the introduction of new varieties will necessarily result in an increase in the recovery percentage but technical efficiency has to be improved further. By-products industries have to be developed. Power alcohol may possibly make headway before the war is over. The industry is at present handicapped on account of the obstacles in the way of importing machinery. But there is no need for despair. There should be no slackening in the efforts to increase the production of power alcohol and rectified spirit.

Reference also was made in the last Annual to the need for certain other developments for the proper growth of the industry. The emphasis was on the need for a co-ordinated policy so far as the provincial governments were concerned. The concentration of the industry has created a bottleneck in this war period owing to the lack of transport facilities.

Sugarcane—Necessity of Improvement in Cultivation

The conditions of sugar production in India are peculiar and have hardly any parallel elsewhere. The manufacturers in India generally do not produce the raw material, viz. cane as they do in Java and other

countries from their own extensive plantations round about the factories but they depend on a large number of agriculturists with small holdings of land independent of each other and working without any definite system, industrious but lacking in capital, in resources, and in scientific knowledge and consequently incapable, in the absence of any guidance either from the Government Departments or from the factory owners, of making use of modern, up-to-date and scientific methods of efficient cultivation, crop-rotation, manuring, etc. This is a very important factor which has to be borne in mind in a study of the problems of sugarcane and of agricultural improvements in India. Bombay is the only Province where factories grow cane on their own land, almost entirely.

Extension of Cane-cultivation or Improvement?

A glance at the area under cane cultivation in relation to the requirements of sugar and *gur* in the country will show that at present we have a sufficient acreage under cane for meeting the requirements of sugar of the country. There is therefore no necessity of increasing the area under cultivation (in 1943-44 the area under cane is estimated at 41,13,000 acres). We feel, however, that it is essential to improve the quality of cane as also the yield of cane with a view to lower the cost of cultivation in preference to an extension of the area under cane, under the present circumstances.

Diseases in Cane and Pests must be Eradicated

It is equally essential to eradicate the diseases in cane and pests. We are also aware that in respect of the yield of cane per acre, its sucrose-content or average percentage of recovery of sugar from cane, we are still far behind many other sugar producing countries, viz. Java, Cuba, Hawaii and the Philippines. It is equally certain that unless we are able to effect considerable improvement in this direction it will not be possible for us to stand competition with other advanced countries of the world. Whether it is due to plantation of cane without a scientific system of rotation of the cane crop, extended ratooning, absence of manure and fertilisers, lack of plentiful supply of water either through irrigation or tube-wells, and diseases and pests, our cane crop is poor both in respect of yield and quality. *The direct consequence of this is the high cost of production of cane per acre, and a great national loss, valued at millions of rupees to the agricultural community in the country.*

¹ This is about 2 per cent of the cultivated area in India, and approximately 35 per cent of the sugarcane area in the world.

In addition to these causes, great harm is occasionally done to the crop by insect damage in various provinces. For instance in 1939-40 there was a widespread outbreak of redrot and wilt in the cane-growing belt of Bihar, and it appeared that the infection was worst where the largest areas were kept under ratoons. The Bihar Government issued a press communique in July 1940, pointing out the great danger of infection to cane crop from ratoons and they also observed that it was their intention to fix considerably lower prices for ratoon cane than for plant cane. The Imperial Council of Agricultural Research also issued a note regarding the Pyrilla Pest and observed that the best time to prevent Pyrilla damage was early in the year when sugarcane plants were generally young and not high or leafy to prevent labourers from going into the fields. They also stated that the records showed the Pyrilla was a bad pest which occurred in 4 or 5 years and as the last outbreak was in 1937, the years 1940 and 1941 were considered dangerous for the recurrence of the pest. They therefore recommended that widespread publicity should be given amongst sugarcane growers and they should be asked to keep a close watch on the sugarcane fields for any appearance of Pyrilla in numbers, to collect and destroy immediately all leaves so affected and to avoid ratooning as far as possible in 1940.

Education of Cultivators by Demonstration of Improved Methods

Apart, however, from this immediate and important task of research work in connection with the problem of pests, there is a great necessity of undertaking other measures which would bring home to the cultivator the necessity and the desirability of effecting improvements in the conditions of cultivation of cane. The average cultivator in India is hardly aware of the latest improved methods of farming or manuring or crop rotation or selection of varieties suitable to the soil, and he simply carries on the old and traditional methods of cultivation from year to year without worrying about the importance of effecting any improvement in the quality or the quantity of the cane grown on his fields. *Sugarcane crop is one of the most important crops of the country, the annual value of which has been estimated at over 60 crores of rupees, and the prosperity of this second largest industry of the country is closely linked with it.* Apart from this, as the Provincial Governments, are aware, the growth of the sugar industry adds substantially to the resources of the ryot and even in the midst of a period of depression it has enabled him to pay his rent or land revenue, his irrigation dues, and other taxes. It is therefore the duty of the Government to devise suitable means of imparting instruction in modern

methods of cultivation to the ryot and to make available to him the fruits of organised research with a view to improve his economic condition, and also to put the industry on a sound basis. Although it is satisfactory to note the work done in this connection by the Sugarcane Research Stations at Coimbatore, Shajahanpur and Muzaffarnagar, Karnal, Padegaon in the Deccan Canal area, Mushari (B. & O.), Pusa, Dacca, Mysore, the Jorhat Experimental Station in Assam, at Risalewala and Jullundur in the Punjab, at Bangalore, Anakapelli, Madras, Hyderabad and other places, and although improvements are slowly being effected in the quality of cane grown in the various provinces, we feel that the time has definitely arrived when we should redouble our efforts to establish more intimate contact with the cane-cultivator and to initiate him into modern methods of better farming by actual demonstration. For this purpose it is essential to establish a series of demonstration farms and nurseries in all cane-growing provinces in order that they may devote their energies to the propagation of cane of higher sucrose-content, of higher tonnage, of early and late-ripening varieties for the extension of the crushing season, of increasing the yields by suitable crop-rotation, by provision of a suitable supply of water through irrigation or tube-wells, etc. These demonstration farms and nurseries should also serve as centres from where trained agriculturists would tour round the surrounding districts in order to show or demonstrate efficient methods of cultivation and manuring suitable to the soil in the various places and would distribute disease-free seed amongst the cultivators. An important function of these farms would be to conduct researches as to the methods of combating cane diseases and pests. In addition to the establishment of such farms, it is also necessary for the Provincial Governments to undertake other allied works of effecting improvement in the cane cultivation by educating the ryot in the use of irrigation water, by providing better facilities of irrigation, by extension of the canal system, and by affording suitable assistance in tapping the subterranean sources of water supply.

Improvement of Cane Crop

The immediate necessities for the cane crop of India are (1) improvements aimed at lowering the cost of cultivation, as for example, by increasing the tonnage per acre which in turn will give a better return to the cultivator and (2) raising its quality, e.g. by producing varieties having higher sucrose content and greater resistance to diseases and pests so that it may command a higher price from the sugar manufacturer and produce a larger quantity of *gur* for the same weight of cane. Steady work of improvement may immediately be taken in areas ad-

joining sugar factories which have been reserved and assigned for the sugar factories in accordance with the Bihar and U. P. Sugar Factories Control Rules, as they are likely to give immediate benefit both to the manufacturer and to the cane grower. We might also observe that the ultimate success of the industry hinges upon the availability of suitable quality of cane at considerably lower prices than at present and that this can only be achieved by comprehensive research work in the production of sound, healthy and disease-free canes with plenty of sucrose content, and the extension of the cane-crushing season from about 4 months as at present to at least 7 months in the year by encouraging and promoting the growth of early ripening and late ripening varieties of cane suited to the climatic conditions of the various areas of production.

Valuable Educational Effect of Cane-crop

Sir John Russel, F.R.S., a distinguished British scientist, in his Report on the work of the Imperial Council of Agricultural Research in applying Science to Crop-production in India, published in October, 1937, observed that the Imperial Council can justly claim credit for the great success in its activities in connection with the production and utilisation of the cane crop. We may observe here that although the total area under sugarcane is only about $3\frac{1}{2}$ million acres out of 277 million acres cultivated in India, the importance of the sugarcane crop is out of all proportion to the area which it occupies. In so far as the cultivator is concerned, sugarcane has a valuable educational effect. In the words of Sir John Russel, "He learns the advantages of modern varieties of crops, of fertilizers, of proper cultivation; the need to watch for plant diseases and to seek advice when he is in difficulties. The Agricultural Officer has more chance to coming in touch with a sugarcane grower than will an ordinary small cultivator. From the national point of view, India is a heavy consumer of sugar including *gur*, of course, standing second amongst the nations of the world and being surpassed only by U.S.A."*

We have referred in detail to the question of inter-provincial research organisation for U. P. and Bihar in our last Annual.

Imperial Council's Commendable Work for Industry

The Imperial Council of Agricultural Research from its inception had in hand a programme for implementing the Government's decision

* The consumption of sugar in the U.S.A. in the year 1934-35 was estimated at 5,870,000 metric tons, in the United Kingdom at 2,283,000 metric tons and in British India at 3,350,000 metric tons.

to foster the production of white sugar in India. This programme was in three parts: (a) the selection of cane better suited to the important cane growing districts than the existing local varieties and the improvement of their cultivation, (b) the improvement of local methods of making *gur* and (c) the development of an advisory and research service for the sugar factories. As has been pointed out above, the selection and breeding work has been accomplished with great success. Investigations on the breeding of sugarcane started by Dr. Barber were developed with great success by Sir T. S. Venkatesan who also invented many devices for overcoming various experimental difficulties.

Besides the plant breeding work proceeding at Coimbatore, a special method involving mutilation or destruction of some of the chromosomes by X-rays is being tried by Dr. Barham at Bangalore and irrespective of whether this produces better sorts or not, it promises to give new material of value to the breeder. The area under improved varieties occupies a very large proportion, no less than 75 per cent of the area under sugarcane, and this is larger than for any other crop. It will be more helpful if a simplified form of experiment including practical combination of varieties, irrigation, manuring, etc., would be tried on the land belonging to the cultivators. Conclusions drawn from experiments at Research Stations would be greatly strengthened if they are confirmed on other farms also.

We would invite the attention of the readers to the small booklet entitled "A Summary of Some Practical Results of Sugarcane Research in India" issued by the Imperial Council of Agricultural Research. A revised edition was issued in 1940.

Improvement in Yield Possible

While the yield of great tracts of the main sugarcane producing Provinces was still far from satisfactory as compared with the yields got, say in Java, it is definitely proved from the work of the Indian Research Stations as also from the experience of factories growing canes that high yields are possible. Experiments conducted with C-330 and POJ-2878 at three sugar factories, one Government Farm and three cultivators' fields in different parts of Deccan-Canal area, in 1935-36 showed encouraging results. On the Ravalgaon Sugar Factory 50.5 tons of the former and 41.4 tons of the latter was the yield per acre. In a competition organised by the Maharashtra Chamber of Commerce in 1935-36 yields of 80 to 100 tons of cane per acre were obtained without any reduction of sugar. In Mysore, in 1935-36, H.M. 320 yielded as much as 36.86 tons per acre while H.M.-606 yielded 51.88 tons per acre and H.M.-607 yielded 50.40 tons per acre.

Rotational Trials

The following-up of a cane crop too closely by another cane crop tends to exhaust the land. Green-manuring the land with *Sam* previous to sowing the crop supplemented with additional manuring with nitrogen in the form of cake or ammonium sulphate at the time of planting has generally been found useful.

Ratooning

Ratooning is a subject on which there has been a good deal of controversy, particularly since there is some evidence that ratooning causes an increase in insect pests. The period of profitable ratooning varies greatly in different localities and depends on the soil, variety and the treatment which the crop receives. Ratooning as at present practised has acquired a bad name, perhaps because the crop is often neglected. Canes differ to some extent in their performance as plant canes and as ratoons. On the whole thin canes are better suited for ratooning than thick canes although thick varieties have also been found to ratoon well in certain places. This subject was discussed at the Sugar Committee meeting in July 1936, where it was noticed that opinions of Directors of Agriculture, of factory owners and of cultivators were divided as to the increase of insect pests in cane as a result of ratooning. The question is under further examination by scientifically planned experiments. The matter is at present receiving the attention of the Imperial Council of Agricultural Research. The view generally held, however, at present seems to be that first ratooning is all right. Ratooning of cane crop beyond one season does not find much favour amongst the factory owners. (*Vide* 1937 Annual, pp. 69-73.)

It is now being realised that ratoons are easily susceptible to disease and should be discouraged as much as possible.

We have referred in our 1940 Annual to the use of molasses and Press Mud as manure for sugarcane cultivation and have shown the beneficent results that have followed from it.

Allocation of Sugar Excise Fund for Improvement of Cane

In his budget speech of 1934, Sir George Schuster, the then Finance Member of the Government of India announced that an amount equivalent to anna 0-1-0 per cwt. of sugar assessed to sugar excise duty would be set apart to form a fund to be distributed amongst the provinces where white sugar is produced for the purpose of assisting the organisation and operation of co-operative societies among cane-growers so as to help them in securing fair prices or for other purposes directed to the same end.

The Government of India have allotted or earmarked varying amounts of money for various Provincial Governments out of the Sugar Excise Fund. In 1939 Annual we gave details about the schemes which were thus financed during the past years.

A fresh drive to organise the cane development work in the U. P. in the light of the criticisms levelled from time to time against the scheme being worked out in 1938-39 was launched by the Provincial Cane Development Department. The new plan of development, which was formulated by Mr. R. L. Sethi, Cane Commissioner of the U. P., in 1940-41, sought to give a fillip to development work.

The plan among others, included provision for the following :—

1. Development of compact zones round factories ;
2. Selection and propagation of tested varieties ;
3. Provision of suitable manures and tried cultural methods.
4. Zone trials, and
5. Systematic regulation of seeds.

Cane Development in U. P. in 1942-43

The Cane Development Scheme was first started towards the end of 1935 with the help of contribution from the Government of India. The U. P. Sugar Factories Control Act provided for the reservation and assignment of areas and since 1938 that system has been in vogue.

The following official note summarises the developments in 1942-43 :—

Development and Marketing of Sugarcane in U. P. in the Year 1942-43

The total area under cane development scheme was 589.03 thousand acres out of a total area of 780.15 thousand acres reserved for the factories. It was divided into 134 zones comprising 17,325 villages. As compared to the previous year the area under development rose by 16 per cent. The chief reason for the increase was the unrestricted crushing which was permitted during the last season and payment of deferred price at the rate of Re. 0-2-0 per maund ordered by Government.

The rainfall was plentiful and well distributed. The conditions for the growth of sugarcane in all the ranges were good and the average yield for the whole province was better than the previous year.

No crushing quotas were imposed. The mills were called upon to produce as much sugar as possible. The yield in reserved areas was estimated at 2307.57 lakhs maunds of which the total cane crushed by the factories in the province excluding the factories of Rampur and Abdullapur was 1301.36 lakhs maunds showing that only 61.3 of the cane available in the reserved area was crushed and the remaining was utilised for the manufacture of gur, seed and chewing. 69 per cent of the cane crushed was supplied from the gae presses, 29.1 per cent was transported by rail and 1.9 per cent from outstations by road.

Of the total cane crushed in the province 68 per cent was supplied by cane-growers' co-operative societies. The average recovery for the province was 10.09. The highest figure of 10.92 was obtained in the Eastern Range, Ccrakhpur.

The policy of the department was to secure maximum crush to the factories from the gae areas and to reduce the transport by rail and road to the minimum. Transport of cane from a number of stations lying within 10 miles of the factories was stopped in pursuance of this policy and also to release wagons for other essential transport necessitated by the War.

Selection of suitable varieties and their propagation in the reserved areas were systematised and steps were taken to reduce the gap between the research stations and the cultivator's field. 3 Regional Committees, one for the Western and Rohilkhand Ranges, one for the Central Range and one for the Eastern, mid-eastern and Benares Ranges were set up by the Government to scrutinise the behaviour of different varieties in their respective jurisdictions and to recommend them to the department for multiplication and propagation. A large number of manurial, varietal and other trials were laid down in the farms owned by the factories and fields of cultivators all over the province to secure data for confirmation on cultivators' fields results of researches conducted at the Research Station, Shahjehanpur. These for the first time were considered by the Regional Committees in November 1943 and a copy of their proceedings is appended herewith. Intensive development of cane was also secured by personal supervision of kamdars over a block of 50 acres each. These blocks showed on the average an increase of 150 maunds per acre.

The quantity of sugarcane seed distributed through the department fell from 37,70,262 maunds of the previous year to 27,32,573 maunds. The fall in the quantity distributed is a sign of increasing resources of the cane-grower in the supply of his own seed of the required variety.

The following table shows the varieties encouraged in the various ranges :—

1. Western Range :—Co.453, Co.312.
2. Rohilkhand Range :—Co.453, Co.527, Co.313, Co.S.146.
 - (i) Dehra Dun :—Co.453, Ek 28, Co.356 and Co.419.
 - (ii) Kichha :—Co.313, Co.419, Co.453 and Co.S.76.
3. Central Range :—Co. 527, Co.453, Co.421 and Co. 313.
4. Basti Range :—Co.S.109, Co.527, Co.370, Co.393.
5. Eastern Range :—Co.S.109, Co.370, Co.393, Co.313, Co.356 and Co. 395.
6. Benares Range :—Co.S.109, Co.527 and Co.313.

The problem of supply of manure and implements to the cane-growers became very acute on account of great rise in prices due to war. The quantity of manure distributed fell from 1,15,000 to 93,000 mds. and the number of implements from 44,000 to 27,000. The fall in these figures is very unfortunate but cannot be helped.

The Cane-growers' Co-operative Societies showed an alround improvement. Their working capital rose from 43 lakhs to 49.96 lakhs and the membership from 6,88,000 to 7,14,000. The total profit made by the unions amounted to Rs. 5,72,000 as against Rs. 3,76,000 of the previous year.

In addition to the marketing of cane, the Cane-growers' Co-operative Societies maintained 71 seed stores for marketing other produce, e.g., wheat, paddy, rice, etc. and undertook to construct and improve feeder and inter-village roads.

An important feature of the year was the help rendered by the factories to the societies in the development of their areas. The factories in the province provided 65 supervisors and 220 kamdars to the societies at a total cost of Rs. 69,122. The factories also gladly offered a premium of Re. 0-1-0 to cultivators over the minimum price of cane for Co.313 to compensate the grower for the comparatively poor yield of this variety as compared to others. This arrangement is of mutual benefit to both grower and factories and is finding favour all over. An important circular was also issued to Co-operative Societies asking them to honour their obligations towards factories and to prefer supplying their cane to factories than to use it for *gur*-making.

U. P. Cane Commissioner's Activities in 1942 and 1943

The Cane Commissioner in the U. P. issued two Development circulars during this period. It showed that efforts were made for

improvement in the yield of the cane. It also stated that the varieties of cane which were found suitable for different districts as a result of trials carried out by Research Stations at Shajahanpur and elsewhere in collaboration with the Cane Department, should be distributed in the appropriate areas. It was also intended to make arrangements for planting the crop in such a manner that the varieties are supplied to the mills in accordance with their period of maturity, i.e. the early varieties going to the mills first, followed by medium ripening types, both these being preceded by ratoons. The circular on this subject was issued to the Cane Development Officers for necessary action.

Improved methods of cultivation were also recommended to farmers. This included (1) trench cultivation and (2) sowing on flat followed by earthing in rains.

In regard to the ratoon crop, it was stated that, although much was stated against ratooning as being a source of infection for various diseases and insect pests, it was difficult to eradicate it altogether for economic reasons. It was stated that in some localities the plant crop may actually result in a loss and profits were only obtained from ratooning. It was also observed that although the yield per acre falls progressively with each crop of ratooning, the first ratooning, if properly looked after, gives good returns. It was recommended, however, that the ratoon crop should never be used for seed.

A recommendation was also made for educating cultivators in appropriate rotational practices to help maintenance of soil fertility.*

U. P. Regional Sugarcane Committees, 1943

During the year 1942-43 several meetings of the Regional Sugarcane Committees were held in the U. P. (Central Tract, Western Tract and Eastern Tract), when various questions of importance to the industry were considered. For instance, it was agreed that in view of its high yield of sugar content, Co.527 should be further tested and multiplied and that no new (unreleased) variety should be distributed by anybody unless proper mill tests have been carried out. This applies to the Central Tract. Measures were also concerted for the quick elimination of non-approved varieties, a programme of zonal field trials was also drawn up and a list of factories was prepared for conducting mill tests in respect of various varieties of cane.

* Vide "Development Circulars" Nos. 1 and 2 issued by the U. P. Cane Commissioner in January 1942 and January 1943. Also vide issue of "Indian Sugar" for March 1943, p. 91.

*Sugarcane Research Work done at Shahjahanpur during 1942-43 **

The research work conducted at Shahjahanpur comprised not only seedling, varietal and Agronomical studies, but also chemical studies, physiological studies and mycological studies. Investigations were also carried on in 29 cane zones out of the 30 in the Gorakhpur District. Varietal and Agronomical trials were taken at Muzaffarnagar along with entomological studies. Ratooning trials were also taken in the Kalai Farm (Mirarh). With the active help and co-operation of the cane development staff about 200 experiments were laid out in out-station areas at more than 75 different centres all over the Province.

Sugarcane Research Work in Bihar during 1942-43

In a short note on the researches carried on in Bihar in 1942-43, Mr. K. L. Khanna, Sugarcane Specialist, Bihar, points out that varietal research was carried on, and the defects in the adoption of a large number of varieties which could extend the crushing season to 160 days in Bihar owing to the fact that the crushing was not normal. On more than one occasion during the last decade the standing crop of sugar had to be burnt resulting in a serious shortage in the following years, when the length of the season was cut down to bare 40 days. Under such wide fluctuations in the crushing season no sound varietal could be developed.

In regard to ratooning, it was pointed out that they start with the definite advantage over the freshly-planted crop in the matter of pre-monsoon tiller growths. This advantage is not maintained throughout. It was pointed out that ratoons show a saving in the cost of cultivation of almost 60 per cent as compared to plant crop; even with the lower yield the first ratooning is an economic proposition, the manured crop being superior to the unmanured one.

Bihar Sugarcane Advisory Committee, 1943

The Government of Bihar have been taking concerted measures for the improvement of cane ever since 1936, when they established the Bihar Sugarcane Advisory Committee. At the fifth meeting of this Committee held on the 13th December 1943, various questions of considerable importance to the industry were discussed. Considerable research work is in progress to determine the various kinds of cane suitable for the industry. The Bihar Sugarcane Advisory Committee

* Vide Report of the work done on sugarcane by the Economic Botanist (Sugarcane) to the Government of the U. P., forwarded by the Imperial Council of Agricultural Research, New Delhi, with their communication No. F.55(1) 42-D dated the 24th February, 1944.

recommended the following varieties as suitable for the areas mentioned :—

For North Bihar (All areas North of the river)
Co.313, Co.395, Co.508 and Co.513.

For South Bihar (All areas South of the river)
Co.313, Co.453 and Co.513.

It was stated that Co.331 would continue to be planted for another season.

The Committee also discussed the question of payment of premium for superior varieties of cane. The view was held that factories would be willing to pay premium for the variety giving definitely a better recovery than the standard cane (i.e., Co.313 at present).

It was suggested that the amount of the premium for the individual varieties should be fixed on a percentage basis of cane prices of the standard variety, the percentage to be determined taking into consideration both the extent of better recovery and the smaller yield so as to make it economical both to the factories and the growers.

Canegrowers' Co-operative Societies in Bihar in 1941-42

At the end of the previous season, i.e. 1940-41 there were 1,488 Cane-growers' Co-operative Societies and 32 Co-operative Cane Marketing Unions in the province. During the year 1941-42, the numbers were increased by 598 and 18 respectively, so that at the end of the year there were 2,086 primary societies in the province and 50 Unions. The membership of the primary societies amounted approximately to 49,000. As the result of the reduction of the area under cane in 1941-42 following excessive production in 1940-41, the societies, in spite of the increase in their numbers supplied only 44 lakh maunds of cane to the factories, as compared with 88 lakh maunds in the previous season. The former figure, however, represents 14 per cent of the total crush in 1941-42, while the latter figure represents only 13 per cent of the cane crushed in 1940-41. Although the actual amount of cane supplied was therefore only half of what it was in the previous season, the proportion of cane supplied, to the total of cane crushed, showed a slight increase. Of the cane supplied by the societies to the factories no less than 88 per cent consisted of improved varieties recommended by the Agricultural Department, and acceptable to the sugar industry.

During the period under review the Cane Development Staff as usual took advantage of the organisation of the growers into societies

to do as much development work as possible amongst society members. Over 3,000 demonstration plots were laid out in members' fields, in order to demonstrate better and cheaper methods of growing cane, the use of improved implements, the benefits of manuring and such other improvements as the Agricultural Department had to offer. In connection with this work 7,300 maunds of cane seed, 150 maunds of fertilisers, 266 maunds of castor cake, and 38 maunds of sanai seed were distributed free amongst the members in addition to this 818 sets of iron implements were placed with the societies for the use of their members. The members themselves bought 8,747 maunds of fertilisers, and green manured 452 acres for cane, while societies purchased 85 sets of implements.

Paramount Need for Research Work Emphasized

The main problem of the Indian Sugar Industry has been, and still remains, agricultural. Until the average yield of cane per acre is increased to about thrice its present yield of 16 tons per acre, the industry cannot be said to have been placed on a stable footing. The production of improved varieties of cane having higher sucrose content and yielding heavier crops, and their proper cultivation without affecting the fertility of the soil are questions of primary importance. These cannot be tackled unless the Government of India take a keener interest in the matter and make a bigger provision by granting a liberal amount of money every year for a comprehensive scheme of research, agricultural, engineering and chemical. A great deal has yet to be achieved both on the agricultural and manufacturing sides but more on the agricultural side before the sugar industry in India can be put on its feet without the help of protection. The research work financed by the Provincial Governments is at present confined to the chemical, botanical, agricultural and engineering sections and to the experimental farms. Excellent work has been started by the chain of research and other stations subsidiary to Coimbatore which have been established by the Imperial Council of Agricultural Research in the main sugarcane belt of Northern India running from Peshawar to Assam. Mention must be made in this connection of the research work carried on in Anakapalle, Padegaon, Dacca, Shahjahanpur, Muzaffarnagar, Mushari, Assam, Mysore, Pusa and of the technical programmes of work on new and extension schemes, as for example, scheme for research on anatomy and morphology of sugarcane, Sorghum hybrids, scheme for breeding thick canes in Mysore, scheme for investigation on the mosaic and other diseases of sugarcane, Bombay-Deccan sugarcane research scheme, scheme of

research on insect pests of sugarcane in various provinces, scheme for Research on Genetics of sugar, scheme for the manufacture of cattle feed from molasses, etc. These schemes are placed for review periodically before the meetings of the Sugar Committee or the Imperial Council of Agricultural Research. We feel, however, that it would be very helpful if the Government of India would pull in from time to time reports on the progress of these various schemes and bring them to the notice of the industry in order to enable them to know and appreciate what is being done in this connection.

Sir T. S. Venkataraman, the famous Imperial Sugarcane expert, who retired in 1942 did remarkable research work at Coimbatore in connection with the improvement of sugarcane. He has added to the reputation of the Indian plant breeders by his careful researches which have been of great economic value of the country.

He was responsible for a complete change in the plantation of cane in North India which has resulted in an increased output per acre of cane with greater sucrose content than before. His valuable researches, it must be admitted, have added several crores of rupees to the wealth of the country.

Mr. N. L. Dutt has now taken his place at Coimbatore.

Improvement in Cultivation most Desirable

The problem of the Industry at present is mainly the problem of effecting improvements in the cultivation of sugarcane. It must be known, understood and realised that India will not be able to sell sugar on equal terms in the world markets until the price of cane is brought down to about 3 annas per maund. In line with the progress made by the industry in the matter of obtaining higher recovery percentages, strenuous efforts should be made whereby the cultivator can reduce his cost of cultivation to about 2 annas per maund, by intensive cultivation of his land, by the growth of cane of heavy yield, etc., by proper crop rotation, by irrigation, manuring and use of modern scientific knowledge. Just as manufacturing efficiency is no doubt important, agricultural efficiency and the percentage of sucrose in cane are still more important. The cost of the raw material, viz. cane, and the quality of cane are the most important elements in the competition and to that end, *both the quality of cane and the yield of the tonnage per acre* must be improved to a large extent.

Imperial Institute of Sugar Technology, Cawnpore

The Government of India started the Imperial Institute of Sugar Technology at Cawnpore, for a period of 5 years, from 1st October,

1936. The Sugar Section of the Harcourt Butler Technological Institute has been taken over with the concurrence of the Government of the United Provinces by the Imperial Council of Agricultural Research and has been developed into an Imperial Institute of Sugar Technology. The Institute is undertaking research work on:

- (a) problems of Sugar Technology in general and those of the Sugar Factories in India in particular.
- (b) utilization of the by-products of the Industry.
- (c) detailed testing of the new varieties of cane under factory conditions, and
- (d) general problems of sugar engineering and chemistry.

The Institute provides adequate facilities for the training of students in all branches of sugar technology. The Advisory Board of the Imperial Institute approved the following courses of study in the Institute:

- (1) Associateship of the Institute in Sugar Technology—(12 admissions each year; duration of course 3 years).
- (2) Associateship of the Institute in Sugar Engineering—(12 admissions each year; duration of course 1½ years).
- (3) Fellowship of the Institute in Sugar Technology or Sugar Engineering (3 admissions for each section each year; duration of course 1 year).
- (4) Sugar Boilers' Certificate Course (12 admissions each year; duration of course 1 year).

The Institute also provides sugar trade information services, bureau of sugar standards, and an employment bureau. The Institute is desired to serve the needs of the industry in technical, commercial and statistical matters. It does not, however, undertake agricultural work on sugar although all important information regarding this is collected and made available to the industry. The Institute gives technical assistance to factories when necessary and has a scale of fees for various kinds of work done. It also runs a small experimental factory for the manufacture of sugar by the employment of modern methods and is specially adapted for carrying out investigation or research work. In June, 1940, the Sugar Committee recommended that the Institute should be made permanent.

Cost of Cultivation of Cane and Fair Price of Cane

In the year 1933 the Imperial Council of Agricultural Research instituted an enquiry throughout India to ascertain the cost of cultiva-

tion of sugarcane and cotton crops of India. The results of their enquiry were published in several volumes dealing with Bombay, Bihar, Madras, U. P., Sind, C. P., Bengal, etc. The Tariff Board of 1937 also examined the cost of cultivation in the principal sugar-producing areas. They came to the conclusion that 0-3-7 per maund was a fair estimate of the cost of cultivation in the U. P., 0-3-4 in Bihar, 0-5-0 per maund in the Punjab, 0-7-0 in Bengal, 0-5-10 in Bombay, and 0-5-5 in Madras. The Tariff Board also observed that allowing for the same climatic advantages, the possibilities of a general improvement in tonnage and quality were greater in the South than in the North, and an equalisation of the cost of production is, according to expert opinion, feasible at no distant date (*vide* page 36, Tariff Board Report). For the purpose of estimating an All-India figure, however, the Tariff Board observed that greater weight must be given to the cost of cultivation in the United Provinces and Bihar, the main sugar-producing areas. Taking all points into account, the Tariff Board considered that 0-3-9 might be taken as a reasonable estimate for the cost of cultivation for the whole of India. The Tariff Board further considered as to what would be reckoned a reasonable margin of profit to give the cultivator and arrived at the conclusion that six pies per maund on an estimated cost of 0-3-9 was in their opinion a fair figure. Adding the two, 0-4-3 per maund of sugarcane was the estimate of the Tariff Board of the fair price for cane.

Sugar Committee Meeting in 1943

We give below official notes reviewing the proceedings of the 16th meeting of the Sugar Committee held on the 5th November 1943 :—

Sixteenth Sugar Committee Meeting in November 1943

The Sixteenth Meeting of the Sugar Committee of the Imperial Council of Agricultural Research was held at New Delhi on the 5th November 1943 with Sir Pheroze Kharegat in the chair. The meeting was preceded by meetings of the Agricultural and Entomological Sub-Committees who conducted a preliminary examination of the various technical matters and reported their findings to the main committee.

At the outset the Committee was informed that Sir Venkataraman had regretted his inability to continue the survey work on sugarcane research on grounds of health. The Committee considered the position arising out of this and recommended that the survey should be continued by an officer or a group of officers to be selected by the Vice-Chairman of the Council. Mr. Nand Lal Dutt, the Imperial Sugarcane Expert,

has since been entrusted with the work and he has agreed to carry out the survey and complete the work.

No new scheme came up for consideration before the Committee. All the proposals considered by the Committee were for the continuation of the present research schemes, more or less on the present lines, in order to complete the programme of work. The committee recommended an extension on the existing basis till the 31st March 1945 in all the cases except the schemes in Sind and Mysore.

Following the tour report of the Agricultural Commissioner, the programme of work at the Central sugarcane research station at Shah-jahanpur came up for review before the Committee. The Committee appointed a sub-committee to go into the programme of work of the station and to chalk out a comprehensive programme for the future. The comprehensive programme has been received and it is proposed to place it before the Indian Central Sugarcane Committee when set up.

The Committee viewed with concern the shortage of manure in the country and made suitable recommendations to meet this shortage. They included *inter alia* the utilisation of press mud and composting it with whatever vegetable matter was available and the consideration of the feasibility of prohibiting the imports of cowdung cakes into municipal areas.

Marketing Survey of Sugar—Report published in 1943

The question of the marketing survey of sugar and sugarcane was discussed at the meeting of the Sugar Committee of the Imperial Council of Agricultural Research on the 3rd May 1937, at Simla and such a survey was undertaken under the guidance of the Agricultural Marketing Adviser to the Government of India, with a view to assist in placing the sugar industry on a sound footing. The report was published during the year 1943. It is a very valuable report giving considerable useful data.

Proportion of Gate-cane to Rail-cane Crushed in Factories in India

It would be of interest to see the statistics of the quantity of cane crushed by the factories in U. P., Bihar and other parts of India, brought to the factories by rail and by carts. The former is known as rail-cane and the latter as gate-cane. We give in Table No. 22, in the "Sugar Industry at a Glance" the percentages of gate-cane to the total quantity crushed by factories in the various provinces for the last five years. These estimates are based on information furnished by a fairly large number of factories.

A glance at that table will show that there is a definitely increased tendency for factories acquiring a larger percentage of gate-cane, which being fresh is richer in sucrose and more favourable to the mills for crushing. In Bombay practically all cane is gate-cane and in Madras the proportion has been increasing very rapidly. With the demarcation of the zones in U. P. and Bihar, in future a still larger percentage of cane will be gate-cane for which, incidentally, the price was fixed between 0-0-3 and 0-0-6 per maund higher than rail-cane depending upon the distances with effect from the 1938-39 crushing in U. P. and Bihar, to up 1939-40 season. The Governments of Bihar and United Provinces removed this difference in price between rail-cane and gate-cane, since the commencement of the 1940-41 season. At present the price is the same. The shortage of wagons for transport of cane will also result in larger quantities of cane being taken at the gate.

Factories Definitely Prefer Gate-cane

Generally, cane is transported to factories by carts within a radius of about 15 miles from the factories. Factories prefer gate-cane to rail-cane for various reasons including its freshness, uniformity of supply, less dependence on wagons which sometimes arrive late, and less handling. We have no doubt that with improvements of roads and communications, larger and larger quantities of cane will be brought by carts and delivered to factories as gate-cane. Where gate-cane is not available the factories have to obtain their requirements of cane from long distances by rail. The average distance of cane brought by rail may be taken as 15 miles and the maximum at about 200 miles. Unfortunately, the problem of supplies of cane has been considerably affected by the lack of transport facilities at the present moment. Owing to slow moving transport it was even preferred to have rail-borne cane but the railway authorities have found it difficult to transport even 50 per cent of their usual quota, and the situation has been particularly bad in 1943-44.

Problem of Utilisation of Molasses

We have already referred to the problem of the raw material, viz. cane, and we may now turn our attention to the problem of by-products of the industry and their utilisation.

Molasses and bagasse are the two principal products of the industry and the seriousness of the problem now before the industry can be imagined from the fact that whereas 13 years ago, when the first Tariff Board reported, the price of molasses was Rs. 1-8-3 per maund, it has now come down to about 0-4-0 per maund, and indeed

its disposal has become a source of great difficulty for a bulk of the factories. If molasses is thrown away by factories, for want of a market, it threatens to be a menace to the public health in the surrounding districts on account of its disagreeable smell and pollution of water if it is allowed to run into an adjacent watercourse. Molasses as a substance has value, but uses must be found for which it can be used, e.g. manuring, cattle-feed, road making, utilisation for the manufacture of Power Alcohol, for the reclamation of *Usar* land, etc. Table No. 34 in the "Sugar Industry at a Glance" shows the production of molasses in India for the last 9 years.

The import of molasses has now practically stopped. There has been small export since 1936-37. The price of molasses has fallen from 0-2-5 from 1930-31 to 0-15-0 in 1931-32, 0-4-4 in 1932-33, 0-5-0 in 1933-34, 0-2-6 in 1934-35, 0-4-0 in 1935-36, 0-1-7 in 1936-37, 0-1-6 in 1937-38 and to about 0-2-1 in 1938-39. In 1939-40, the price was a little higher, in 1940-41, it was 0-2-6, in 1941-42, about 0-3-0, and in 1942-43, it is fetching about 0-6-0 and in some cases, even a little more.

Reference has been made earlier to the efforts to increase the production of power alcohol which necessarily meant greater consumption of molasses. But the plans have not materialised to expectations. There has certainly been an increase in the production of power alcohol but it has not resulted in any great absorption of molasses and the problem of disposal is perhaps easier only for mills which are situated near distilleries.

*The Governments of U.P. & Bihar Joint Molasses Committee** (1937-38)

The Governments of U. P. and Bihar appointed an expert Committee to devise ways and means for starting the manufacture of Power Alcohol from molasses and to report on the best method of mixing Power Alcohol with petrol and also to explore the possible uses of molasses and their practical application.

The Committee submitted its report to the Governments of U. P. and Bihar in June 1938. The report was published in July 1939. A summary of its recommendations are included in the 1939 Annual (page 234-240).

The Government of U. P. passed an act for implementing the recommendations of that Committee for manufacture of Power Alcohol out of molasses and also published rules to be made in that Act. The

* Mr. M. P. Gandhi, Editor of this Annual had the honour of being a member of this Committee.

new Act came into force in the middle of 1941. A detailed account thereof was given in our 1941 Annual. A reference may also be made to the first part of this Annual.

In this connection it is necessary to state that the Government of India have made efforts to manufacture alcohol only at a time when the necessary equipment is not available. And without such equipment, it is not possible to manufacture power alcohol on a large scale. At present only a few plants are in operation in the United Provinces, Mysore, Hyderabad and Bombay.

Madras Power Alcohol Committee

We referred to the recommendation of the Madras Power Alcohol Committee in the 1939 Annual and observed that they had no hesitation in recommending legislation to enforce mixing of Power Alcohol with petrol, which they considered was justifiable in common national interest.

During 1940, the report of the Director of Industries, Madras, was published, and it states that some doubt was expressed as to whether Power Alcohol, even taking the low rate of Rs. 7 per ton of molasses, could compete with petrol at any point in that Province after paying the central excise duty. Eventually, the Government decided that the proposed legislation for the compulsory admixture of Power Alcohol with petrol for use as motor-fuel should be dropped, and if the question was to be re-opened at some date, a Committee representative of all the Provinces and the Government of India should be set up to consider the matter further, in the light of all the information which became available on the subject during the interval. The position now, however, is different and efforts to produce alcohol are limited only by the availability of plant. There is no question of cost.

Power Alcohol in Mysore

Ever since the establishment of a Distillery at Mandya, by the Mysore Sugar Co., Ltd., experiments have been conducted with regard to the suitability of 96 per cent alcohol, both by itself and as an admixture with petrol, as motor fuel. Early in 1939, the Distillery began the manufacture of absolute alcohol and as a result of the experience gained with the use of alcohol as motor fuel, the Mysore Power Alcohol Act was passed, making it compulsory for the admixture of 15 per cent of alcohol with all petrol sold in the State. This Act came into force on the 1st October 1939, to begin with in the districts of Bangalore and Tumkur, and since that date all petrol sold in Bangalore and Tumkur districts contains 15 per cent alcohol produced at Mandya.

The annual consumption of petrol in the Mysore State is about thirty lakhs of gallons and on the basis of a 15 per cent mixture. There is scope for absorbing about 4,50,000 gallons of alcohol. This would mean that the import of petrol into the State can be reduced by this quantity and the money that would have gone outside the State would remain within the State itself. It is the desire of the Mysore Sugar Company to be able to supply the entire quantity of alcohol required for admixture with petrol for sale throughout the State and it hopes to do so as soon as possible.

To the progressive Mysore State goes the credit of being the pioneer in this field in the whole of India. This plant was duplicated in 1943, as shown later.

Precaution in using Power-Alcohol-Petrol Mixture

At the outset, the admixture received a mixed welcome from the petrol-using public. There was prejudice in certain quarters against this innovation as is only common with all innovations, but this was removed in course of time. When alcohol petrol mixture is used, it is essential that the petrol tanks of the vehicle and of the pumps out of which the mixture is drawn should be thoroughly cleaned, as, otherwise, alcohol being a solvent would take the dust along with it and it may cause starting trouble. Further, care should be taken to see that no water enters the petrol tank since petrol and alcohol in the mixture become separated if water gets into it.

Power Alcohol industry is a great national industry and the value of Power Alcohol in the present emergent condition when supply of petrol is short, cannot be over-emphasised. To India, especially, the power alcohol industry has great potentialities. Unfortunately the lack of vision on the part of the authorities has landed this country in trouble. With the supplies from the East Indies cut off and with the Assam oilfields threatened, there is a vital shortage. If the alcohol industry had been developed the problem would not have been so serious.

Utilisation of Bagasse Produced in Factories

In the 1939 Annual we have dealt at considerable length with the problem of the utilisation of bagasse (residue of crushed cane) produced in factories. The question was further considered at the 13th Meeting of the Sugar Committee held in 1941 to which a reference was made in the 1941 Annual.

A glance at the pre-war statistics of imports of packing paper and boards will show that there exists a market for wrapping paper and board in India, a portion of which can be suitably exploited, as bagasse may be utilised for same for the manufacture of these. It is reported that bagasse is now being used on a large scale for the manufacture of board, etc., in view of the acute shortage of paper boards and wrapping material.

Plastics from Bagasse

An industrial plastic is a substance that is obtained in a soft condition and becomes hard and resistant when subjected to heat and pressure while being moulded. Cane bagasse as a source of raw material for plastics has been discussed and investigated for several years. It has been pronounced suitable for making a large number of articles used in building automobiles, steering wheels, gaskets, buttons, knobs, dashboards, etc., and all kinds of fitting for electrical installation. This use is found particularly advantageous now.

There are plenty of other raw materials that satisfactorily answer all the abovementioned purposes. But what lends particular interest to bagasse as a source of raw material is that it is cheap and plentiful.

Report on Research in Utilisation of Bagasse Published

Investigations on the manufacture of insulation pressed boards, wrapping papers and strawboard from bagasse were completed by the various Research Institutes in Dehra Dun in December 1941. A report on these investigations was published by the Imperial Council of Agricultural Research, in 1942. It is understood that no further work on bagasse is being carried out at these Institutes since that date.

Sound Absorbing Materials from Bagasse

The use of sugarcane bagasse in making boards for heat insulation and acoustical correction of buildings is well-known. Many such foreign products have been on the Indian market under the names of celotex, tratex, ten test and so on. Due to the development of sugar industry in India to its present proportions, economic utilisation of bagasse is a matter of great importance. At the instance of the Imperial Council of Agricultural Research, research work was carried out by the Forest Research Institute, Dehra Dun, on small scale manufacture of such boards and their findings have been published in an I.C.A.R. Bulletin, where they have demonstrated the possibility of making such boards in India.

In our country heat insulation is not a problem at all in the sense that the cold countries have. Hence the bagasse boards made primarily for sound absorbing and sound insulating purposes would be the most economic way of utilising this by-product from sugar factories. "Good acoustics" is a major requirement of cinema industry, theatres, public halls, studios and auditoria. It is fast becoming a necessity with school rooms and hospitals. Acoustical correction is a complicated subject and before any material is used for this purpose it is absolutely essential that it should have been thoroughly tested in all conditions of mounting, etc., in a laboratory. Until now we have had no such facility in India.

Since January 1943 the Indian Institute of Science, Bangalore, have started a nucleus for such an Acoustical Laboratory in the Department of Electrical Technology. One of its functions will be to carry out scientific tests and research work on the acoustical properties of building materials with a view to help development of this important industry.

Dr. N. B. Bhatt, a distinguished Engineer from the Massachusetts University, is in charge of the laboratory.

Problem of Marketing Sugar

More than 75 per cent of the sugar produced in India, is produced in the U. P. and Bihar and this production is far in excess of the consumption of these Provinces which may be estimated at only about 20 per cent, and this situation necessitates scientific marketing of sugar in the various parts of the country in a manner which would avoid over-lapping, which would eliminate internal unrestrained competition, which would minimise freight charges with a well ordered system of distribution from various production centres and the nearest consuming markets and would also eliminate import of foreign sugar at the ports where it can compete more easily than in the hinterland, with a view to preserve the Indian market entirely for indigenous sugar. As a matter of fact, in 1942 and 1943, it was the concentration of the industry that was responsible for the relative shortages in parts of India as adequate transport facilities could not be provided in time for the movement of sugar to the consuming centres.

We feel that the production of sugar in the country should be so regulated as would leave a normal carry-over varying between $1\frac{1}{2}$ to 2 lakhs tons at the end of each season. The production of cane should also be regulated evenly with this end in view.

*Production, Consumption and per capita Consumption of
Sugar by Provinces*

A glance at Tables No. 33 and No. 45 in *The Sugar Industry at a Glance* will show that U. P. and Bihar which produced over 75 per cent of the total sugar in India, consume only about 20 per cent of their total production, while Bombay and Punjab which produce only 7 per cent consume much more. The *per capita* consumption varies widely in the provinces being highest in Bombay and lowest in Indian States.* The variation in the *per capita* consumption is due to several factors. The province which consumes less sugar is consuming relatively more *gur* and *vice versa*. The consumption of sugar also depends on the strength of urban population in the province since the agriculturists consume very little sugar. The difference in tastes and habits of the people would also account for a wide variation in the provincial *per capita* figures for consumption, for instance, the traditional liking for hot curries and sour stuff like tamarind, curds, etc., in Madras explains the consumption of sugar being as low as 3.9 lbs. These statistics of consumption, it must be observed, are in the nature of estimates. The Report on Marketing of Sugar contains very interesting details regarding consumption of sugar by various classes of people, and for various purposes.

Bureau of Sugar Standards

With effect from the 1st of April 1940, the Bureau of Sugar Standards has become an integral part of the Imperial Institute of Sugar Technology.

The Bureau continues to

- (1) prepare and supply the Indian Sugar Standard.,
- (2) publish an annual review dealing with the quality of Indian sugars and giving comparative figures for competitive foreign sugars,
- (3) maintain a Museum of samples of sugar and sugar products.

The standard sets are available for sale each year from July 1st but they come into force from November 1st and remain valid till October 31st of the following year.

The Bureau of Indian Sugar Standards introduced in 1940-41 a new crushed grade called No. 13. But so far production of this grade by

* Mr. M. P. Gandhi brought out this fact prominently and stated that Bombay had "the sweetest tooth" in the whole of India. *Vide* his Rotary Club speech of 13th October 1942, given in the "Sugar Industry at a Glance", in our 1942 Annual, and also his speech before the Rotary Club of Ahmedabad in December 1943, given earlier in this Annual, as Appendix A.

Syndicate mills is negligible. The Syndicate mills have also not so far produced any crushed sugar of grade No. 9. As for the percentage which 12, 11 and 10 bear to the total production, they are .09, .32 and .08 respectively, or in other words 19,000 maunds, 63,000 maunds and 16,000 maunds.

Indian Sugar Syndicate's Activities in 1943

In the last issue (1942 Annual) we had given an account of the circumstances under which the Indian Sugar Syndicate, the marketing organisation of the Sugar mills in the U. P. and Bihar, was obliged to curtail its activities to the minimum after the enforcement of the sugar control. In July 1942, the Syndicate had given up the practice of releasing sales quotas which had been so far its main function. During the season under review the Syndicate kept its activities curtailed to the minimum, watching, however, the general interests of its members and making representations to the authorities concerned on numerous aspects of control.

It was primarily on account of the experience and foresight of the Syndicate that the production of mills in the U. P. and Bihar could reach the high figure of 8.5 lakh tons, as against an anticipation of 7.6 lakh tons made by the Sugar Controller in the earlier season. In fact, on behalf of the Syndicate it was claimed that had its suggestions been taken quite early in the season 1942-43, the sugar factories in the U. P. and Bihar would have increased their contributions to the all-India pool still more.

In November, 1942, the Governments of the U. P. and Bihar announced the cane price of ten annas per maund, and on this basis the all-India sugar price was fixed. It soon became clear that production in 1942-43 would be greatly hampered on account of the smaller profits that growers would make by supplying cane to the cane factories as against converting the same into *gur*, over which there was then no control. Cane supplies to the factories in the earlier part of the crushing season were, therefore, extremely irregular. The position was considered in all aspects at a Board meeting of the Syndicate and the Syndicate subsequently suggested to the Government of the U. P. to impose restrictions on *gur* speculation, and to control its movement from the producing centres. The subsequent steps taken by the Government of the U. P., in this regard did serve the purpose to a large extent. Bihar did not take the measures necessary to control prices of *gur* and factories in South Bihar especially suffered appreciably.

From time to time the Syndicate has been making representations on the working of control and several of the steps taken by the Sugar Controller in response to the suggestions made by it, for instance, the satisfactory despatch position of the factories in the U. P. and Bihar in 1942-43 can be traced to the interest taken by the Syndicate in this regard. The following table shows the despatches made by the Syndicate members during 1942-43 month to month :—

January, 1943	...	...	...	83,400 tons
February, "	...	...	...	65,020 "
March, "	...	...	...	67,516 "
April, "	...	...	...	69,000 "
May, "	...	...	...	61,730 "
June, "	...	...	...	68,680 "
July, "	...	...	...	85,000 "
August, "	...	...	...	67,401 "
September, "	...	...	...	70,583 "
October, "	...	...	...	71,557 "
November, "	...	...	...	57,203 "
December, "	...	...	...	66,484 "
Total				<u>8,33,574</u>

The Railway authorities deserve a word of praise for these satisfactory despatches. The control agencies also adopted a policy of regional stocking or something approaching it and this was implemented by larger off take from factories.

The Syndicate also made representations to the Government in regard to the control on molasses and some of the concessions given by the Government to the mills in these provinces can be traced to the Syndicate. It has pressed the claim of industry for contracting foreign markets and has systematically pressed for strong and efficient centralised control. Its interest is at present mainly centred in the elimination of provincial variations of control and the evolution of a strong all-India organisation for regulating the production and marketing of the industry both at present and on the post-war period.

Co-operation of Railways

The rapid and phenomenal development of the Sugar Industry in this country called for an effective co-operation on the part of Railways, Inland Steamer Services and Ocean Lines, in order to find markets at distant ports and internal centres, and we must observe that such co-operation was forthcoming from the various Transport Agencies. Facilities in the shape of Sidings, and handling of this traffic and concessions in rates, where such was possible, were given. The Railways in

India have realised the necessity of reducing freight rates on sugar to the ports and other internal markets for the mutual benefit of the Industry and themselves. The extent to which Railways have benefited from the Sugar Industry can be seen in the relevant tables regarding sugar and sugarcane movement given in the "Sugar Industry at a Glance".

While the attitude of the Railway and Steamer services has been generally helpful in permitting concessions in rates, the prevalence of the war has resulted in many facilities being dropped. Sugar had also to share the general increase in the freight of 0-2-0 in the rupee. We consider it unreasonable to expect the Railways to single out the sugar industry for any specially favourable treatment, at a time when their resources are strained to the utmost, owing to the war. We cannot expect the Railways to quote concessional rates, like what they used to, to meet competition, say in ports, or to capture new markets, like Iran, Afghanistan, etc.

Expenditure on Research and Investigation Benefits All

We have already referred to the paramount necessity of Research work and of spending liberally thereon for the improvement of cultivation, for increasing the efficiency of factories and for the utilisation of the by-products of the Industry in the best possible manner. Expenditure on Research work should not be considered as fruitless, and it should be treated as profitable investment which will pay itself several times over, and the Government should earmark larger amount from its increasing excise revenue for this purpose in order to ensure the stabilisation of the industry, at an early date.

We have already shown in a table in the "Sugar Industry at a Glance" how there has been an increase in the agricultural income from the improvement of the sugarcane crop and how it has benefited the cultivators generally. The Imperial Council of Agricultural Research assessed the total increase due to the improvement of sugarcane crop at 2½ crores of rupees per annum.

Rs. 20 lakhs per annum must be spent on Cane-research

We suggest that a sum of not less than Rs. 20 lakhs should be spent annually on research work. We endorse the recommendation of the Tariff Board (page 143) that the allotment from the Excise Fund should be raised from one anna to three annas per cwt. We also endorse their recommendation "that the only hope of the industry ever being able to compete on equal terms with other countries, is a reduction in the price of raw material" (*vide* page 143). The Tariff

Board has also outlined various directions in regard to research work for benefiting the industry. The need for intensifying research work is very important now for much depends upon an increase in yield from a given area. It is satisfactory to note that efforts are being made in this direction but a lot remains to be done.

Magnificent Development of the Industry

The magnificent progress of the sugar industry can be a source of inspiration to other industries also and it is the duty of the Government of India to foster the spirit of industrialisation in the country by encouraging an industry like sugar, which has already made the country self-sufficient in the matter of an article of daily consumption within a brief period of six years and which has brought about amelioration to a large number of cultivators whose interests are indissolubly connected with the sugar industry. We strongly feel that the Government of India should also place large sums of money at the disposal of the Provincial Governments for making headway with the Provincial schemes. We would reiterate here that facilities should also be given for research work for improvement in the methods of manufacture of *gur* from cane and for encouragement of sugar from palmyra, dates, cocoanut and other palms, as *gur*-making is a very important village industry. As we have observed before, we feel strongly that the Government of India should give at least annas 3 per cwt. to the Provincial Government for purposes of improvement of the cane-crop, out of the revenue derived from the excise duty amounting to over Rs. 5 crores.

Future of Industry Depends on Increasing Yield of Cane

The future of the sugar industry, we are convinced, depends upon the vigour with which research work is carried on in its various complex problems—agricultural, chemical and technological. It is hardly necessary to reiterate here that the possibility of export of sugar depends entirely on the success achieved in the direction of reduction of cost of production of cane by increasing the yield of cane crop per acre from 15 tons at present to at least 50 tons, and consequently a reduction in the cost of production of sugar (the cost of the raw material works out to about 55 per cent in the cost of manufacture of sugar) to a level which can compare with countries like Java, Cuba, Philippines and Hawaii islands.

Subsidiary Industries like Confectionery, Syrups, etc.

We feel that along with the utilisation of the by-products of the industry, efforts should also be made for the establishment of subsidiary

industries like confectionery, syrups, fruit preservation, etc. The import of confectionery alone in India during the year 1939-40 was valued at about 14 lakhs of rupees as compared with 18 lakhs in the year 1938-39 and that of canned or bottled fruits was valued at Rs. 10 lakhs in 1939-40 as compared with Rs. 12 lakhs in 1937-38. We feel that if suitable assistance is given, confectioneries like lozenges, sweets, toffees, etc., can be manufactured in large quantities in this country and a new industry can be established.*

One method in which assistance can be given by the Government would be to exempt the sugar required for the manufacture of confectionery from excise duty. A market also exists in the country for Demerara sugar, sugar cubes, etc. We hope that the possibility of the development of such industries will not be ignored.

Estimate of Cost of Manufacture of Sugar in Factories—Greatly Increased Cost due to War

It is difficult to arrive at any absolute figure of the cost of production in India. The cost would vary with the percentage of recovery obtained and the number of days a factory works, etc. We feel, however, that it would be safe for the purpose of computation of the cost of manufacture, to take the figures recommended by the Tariff Board after a very careful enquiry on page 81 of their Report. The Sugar Syndicate has also furnished some figures of cost to the Governments of U. P. and Bihar during the year 1939. According to their calculations, the average cost of manufacture in U. P. and Bihar factories worked out to Rs. 2-2-6 per maund, during 1938-39, as against the Government's calculation of only Rs. 1-10 per maund of sugar. But all these figures have been rendered obsolete, after 1940-41, owing to the tremendous rise in the price of various ingredients required for the manufacture of sugar.

Sugar Industry Profits Least during the War

In fact it is our definite feeling that while several other industries have benefited considerably as a result of the war by an expansion in their output, e.g. cotton textiles, steel, cement, etc., and have also made much larger profits than in the pre-war period, the sugar industry has not improved its position at all as the prices of both the raw material

* The South Bihar Sugar Mills of Bihar, the North Bengal Sugar Mill and the Daurala Sugar Mill in U.P., we are glad to note, have commenced manufacture of confectionery since 1937-38. The South Bihar Mill is noted for its excellent toffees, jujubes, boiled goods and satins.

In Bombay, the Parle Products Ltd. manufacture excellent toffees, etc.

and the final product have been controlled and a meagre allowance is given for the increased cost of various ingredients while fixing the sale price of sugar under the Sugar and Sugar Products Control Order of 1943. In 1943-44 season, the price of sugar was not adequately increased. (*Vide* page 30), and this will affect the profits of mills.

Central Sugarcane Committee

During the year 1944 the Government of India announced the establishment of the Indian Sugarcane Committee on the lines of the Indian Central Cotton and Jute Committee. *Vide* page lxii for details.

Extension of the Term of the Sugar Committee

In 1943, the Government of India announced that pending considerations of the establishment of the proposed Central Sugar Committee, the governing body of the Imperial Council of Agricultural Research have extended the term of the Sugar Committee with the existing personnel up to 30th September 1944, or till the proposed committee was set up, whichever was earlier.

Bihar Labour Enquiry Committee

During 1938 the Government of Bihar appointed a Labour Enquiry Committee* for investigating the problems relating to industrial labour in Bihar and for making such recommendations as may appear practicable for the purpose of improving the level of wages, conditions of work, employment, etc. The Committee submitted its report in April 1940. The personnel of the Committee was as follows:—

Dr. Rajendra Prasad, *Chairman*; Mr. R. R. Bakhale, *Dy. Chairman*; Mr. M. P. Gandhi; Prof. Abdul Bari, M.L.A.; Babu Jagat Narain Lal, M.L.A.; Dr. Radha Kamal Mukherji; Mr. H. B. Chandra, M.L.A.; Mr. A. M. Hayman and Mr. R. K. Saran, *Secretary*.

The Report has received the attention of the Bihar Government who have already commenced taking action on subjects like Sickness Insurance, Wages, Trade Unions, etc. But no real progress has been made due, *inter alia*, to the war.

India free to export Sugar from September 1942

Reference was made in the 1941 Annual to the proposal made by the International Sugar Committee to the Government of India and the willingness of the Sugar Committee to accord some concessions if India agreed to continue to be a signatory to the agreement. Having regard to the unfavourable operation of the agreement so far as this

* Mr. M. P. Gandhi, Editor of the *Annual*, had the honour of being a member of this Committee (1938-1940).

country was concerned and the great increase in demand for sugar it was decided in consultation with the interests in the industry that the agreement should be terminated. Accordingly, it expired in August, 1942. India is now free to export sugar by sea. But there has been no opportunity to export sugar since. At the present time a limit of 15,000 tons has been placed by Government for export of sugar to neighbouring countries, in 1943-44. We feel, however, that India should try and capture export markets in neighbouring countries.

The Position of the Industry in Madras in 1942-43

The area planted with sugarcane in the Madras Presidency during 1942-43 season shows an increase of 13,000 acres against the final figures for last year, viz. 1,22,000 acres against 1,09,000 acres last year. The crop suffered to some extent from insufficient rain in some places. The yield was below normal.

The increase is due to high prices for jaggery and also keen demand for it on account of shortage of sugar for consumption in the earlier months of the year.

Sugar Control continued during the year. Sugar prices were announced on 1st November at unchanged prices. Factories were not able to crush sufficient cane on account of higher prices ruling for jaggery. On further representation to the Government of India, prices were increased on January 1st by Rs. 2-5-0 per maund, but this announcement was too late as some sugarcane had already been converted into jaggery and even at the increased sugar rates factories could not pay the price required to attract cane to their factories.

Production in the Madras Presidency was 33,400 tons against 39,500 tons last year. The production in the Indian States was 15,600 tons in Mysore, 14,600 tons in Nizam State. Thuckalay Factory in Travancore did not work as jaggery prices were very high.

Cane prices in Hospet were controlled with a sliding scale based on sugar prices. Manufacture of jaggery from sugarcane was prohibited in Hospet area by an Order of the Madras Government dated 26th January 1943.

Factories paid for cane from Rs. 13-11-0 to Rs. 21 per ton.

The Indian Southern Provinces Sugar Marketing Board continued to function during the 1942-43 season.

Mysore duplicates Distillery Plant in 1942-43

During 1942-43, the sugar factory at Mysore worked for 278 days as against 284 days in the previous season. The quantity of cane

handled was only 1,63,000 tons as compared to 3,32,700 tons in the previous season, which was due to reluctance on the part of the ryots to go in for cultivation cane in preference to more attractive and easy-growing food crops, the high price of jaggery which led to diversion of cane for jaggery making, etc. The price contracted to be paid to the ryots for supplies of cane during 1942-43 was Rs. 12-8-0 per ton, but with a view to attract sufficient cane to the factory, a price of Rs. 15 per ton was paid. As the Mysore Government considered this price to be fair, no minimum price of cane was fixed by statute during this season.

In view of the shortage of cane experienced by the factory, it has pursued the policy of extension of its own farms and expects that within the next year or two the factory will be self-sufficient to the extent of 50 per cent of its requirements of cane.

During the year 1942-43 an outstanding achievement is to be recorded for the Mysore Sugar Industry, namely, the successful fabrication of a duplicate distillery plant by a local firm of Hardware Engineers with the aid of the Company's staff. As all efforts to import a plant from abroad proved futile, it was decided to undertake the manufacture of a plant in Mysore with the aid of local material and talent. The plant has been working satisfactorily and compares very favourably with all imported plants. The entire quantity of molasses produced in the factory is used in the distillery for production of potable spirits as well as industrial and power alcohol, for all of which the demand is steadily on the increase.

The Industry in Bombay-Deccan in 1942-43

We give below a note in regard to the working of factories in Bombay in the 1942-43 season.

1942-43 Cane-crushing Season in Bombay

The 1942-43 sugar-crushing season in the Bombay-Deccan was, it may be said, fair; the cane crop was not up to the usual average and there was an acute shortage of labour, which was witnessed even during the 1943-44 season.

The total production of the sugar factories in the Bombay-Deccan was, according to the Deccan Sugar Factories Association, just under a lakh of tons, viz. 96,638 tons (including production in mills located in Indian States), i.e. less by about 10,000 tons than 1941-42 production. The provincial consumption is estimated to be over 2,25,000 tons.

Experimental work on sugarcane cultivation is being continuously carried on by the Deccan factories and valuable data and information are being recorded.

It is doubtful whether the industry will expand to any very great extent in the Deccan-canals area due to the limitation on the supply of irrigation water to the sugar factories, in this tract. Some expansion, however, is possible by means of lift-irrigation elsewhere.

Sugar Production in the United Kingdom and other Countries

It was pointed out in the last *Annual* that the outbreak of war and the scarcity of shipping tonnage, both on account of sinkings and the need for effective utilisation of available freight for war purposes, had its effect on the consumption of sugar in Britain and other Empire countries. Since the fall of the Netherlands East Indies and the Philippines the resources at the disposal of the United Nations have considerably diminished. While it was possible to make up the shortfall on account of the loss of these sources of supply with the intensification of production in certain countries, and while Australia has been obliged in the Eastern Hemisphere to resort to rationing in order to satisfy her export claims, the shipping position has been very difficult. With the increasing flow of war supplies it has not been possible to find any large space for sugar and even the policy of the United Kingdom to buy her requirements from the West Indies and the South American markets in order to minimise haulage has not resulted in any relief of pressure on the storage capacity of important producers like Puerto Rico and Cuba. These islands are choked with sugar and molasses and it is difficult to find additional storage capacity.

It was pointed also that the *per capita* consumption in the United Kingdom had declined to 50 lbs. per annum from 121 lbs. before the war. Imports into the country had been as far as possible discouraged by the increase in the cultivation of home-grown beet. There has been a further decline in the rationing of sugar and the same is now 8 ounces per week per head,* which means 24 lbs. *per capita*. The sugar allowance for the manufacturers of cake, pudding, sponge mixtures, etc. has been completely withdrawn from October 18, 1942. Chocolate and sweet manufacturers are allowed only one-third of their usual requirements.

Thus sugar rationing has been primarily due to the difficulties in regard to shipping and not unnaturally producers have protested against the attitude of the authorities towards sugar and minimising its importance of sugar as an *essential* and *concentrated* article of food.

* In America also, sugar is on ration, only 8 oz. per week being available per head.

The United Kingdom's annual requirements for direct personal consumption, for manufactures, storage purposes, etc. including allowances for losses by enemy action are approximately 1.4 million tons compared with about 2.25 million tons in the pre-war period. Of this total, about 500,000 tons is expected to be supplied by home-grown beet production, the balance of 900,000 tons being imported.

British imports in 1937-38 amounted to 2,436,308 tons though part of this represented sugar brought to be refined and re-exported. The trade in refining has been stopped by the war and imports at the present moment, as will be clear from the foregoing, are only of refined sugar for direct consumption.

Unlike the last war, Britain is fortunate in that she is able to have her full requirements from within the Empire though she is not now in a position to take full advantage of the situation. The increase in the production of the Empire, however, is helpful to other consumers.

In the first two years of the war period the whole of the exportable surpluses of Australia was bought by the United Kingdom. A good quantity was also purchased from the West Indies. In the earlier years the efforts to purchase sugar from India were not fruitful as the arrangement fell through on the score of price and in 1941 manufacturers were not interested in selling sugar to the United Kingdom as a considerable improvement in Indian sugar markets had taken place and it was more profitable to sell sugar internally, looking to the price offered for export sugar.

In 1939, in Australia, with most unusually favourable conditions, there was a record sugar output. The British Government came to the help of the country by purchasing the whole of the available export surplus. Otherwise, such an increase in exports in that season could not have been possible under the terms of the International Sugar Agreement. Again in the 1940 season the whole of the exportable surplus was bought though production was substantially lower.

The Japanese war has brought in its train many difficulties. It is no longer possible for Britain to take supplies from Australia which is situated in the farthest corner of the British Empire. Also, production difficulties have been experienced. The manpower problem was felt most in Queensland and the army authorities had to be requested for release of men employed in the Defence Services for work during the season. With the problem of transport and the increase in export claims from countries like New Zealand, South Africa, etc. rationing had to be introduced.

Sugar rationing in Australia became effective as from August 31, 1942, following a surprise announcement from the Government. The ration is one lb. per week against the usual consumption of $1\frac{1}{2}$ lb. per week and cannot be said to bear heavily on the population as in the case of the United States, the United Kingdom, etc. Rationing became necessary not because of any shortage but on account of transport difficulties which make it essential that large stocks of sugar should be built up in the consuming centres and also because of the obligations of the Commonwealth Government to supply sugar to Empire countries and the Allies overseas.* Rationing is intended purely as a temporary measure and when stocks have been built upto security levels, it is believed that restrictions will be lifted.

The production in the 1941-42 season was estimated at 836,000 short tons against 904,000 tons in the previous season.

Canada's sugar production in 1939-40 amounted to 805,324 tons while the consumption during the same year amounted to 564,561 tons.

New Zealand does not produce any sugar and depends entirely for its requirements on imports. Australia is the principal supplier. The consumption of New Zealand is estimated at about 85,000 tons.

Rationing in the United Kingdom, the U.S.A. and Canada is at present (May 1943) 8 ounces per individual every week, i.e. 2 lbs. per month.

India the Biggest Producer in the Empire and the World

Only by force of circumstances, this country is now getting the recognition it ought to have received long ago. The loss of Philippines sugar, which it was believed would, to a certain extent, meet the demands of Russia, the loss of Java and the remoteness of Australia have increased the importance of Indian sugar. It was never at any time expected that there would be such a complete transformation in the fortunes of the industry. Efforts are being made at the present moment to increase the production of sugar as much as possible. The demand on account of the Government as also the people has increased considerably. With the restrictions regarding the export of sugar lifted, this country is now free to serve the Middle East countries, but only a small quantity is reported to have been exported.

While there were the restrictions in regard to production in 1940-41 and 1941-42, mills can now crush in unlimited quantities and production is restricted only by the difficulty in regard to cane supplies, and

* Let us hope that rationing of sugar will not be necessary in India for any reason.

supplies of other ingredients like sulphur, coal, etc. Factories have been asked to produce minimum quantities of sugar. In 1943-44, there was an all-out drive for increasing production and it has succeeded greatly looking to the production figure of about 12,50,000 tons.

World Production and Consumption of Sugar

Sharp changes in the production and consumption of individual countries have to be directly attributed to the present emergent conditions. This aspect of the question has been referred to in detail in the earlier pages of the *Annual*. There has been no change in the world sugar situation in 1942 to indicate any serious shortage but as has been correctly pointed out by those connected with the trade, that transportation difficulties have seriously limited supplies to individual countries or areas.

In 1941-42 world production of sugar was estimated at 33,427,000 tons and the carry-over on September 1, 1941, at 5,300,000 tons. In 1940-41 world production was 35,325,000 tons and the carry-over on September 1, 1940, 6,800,000 tons. There is thus a reduction in the total world supply of about 8.3 per cent. The estimated world production of 33.4 million for 1941-42 is made up of cane sugar amounting to 22.5 million tons and beet sugar 10.9 million tons (including prospective normal production in Java and the Philippine islands). A sharp decrease in production in Russia and a moderate decrease in India account for most of the decline.

Among the cane sugar countries the largest increase in production took place in Cuba but production was encouraged in all of the countries in North America and the West Indies by the rise in world prices. South American countries also increased their production except Argentina which had an unfavourable season. Production in respect of Hawaii was expected to show a small decrease because of deficiencies in equipment and labour supply. In India there was a falling-off of more than 1.5 million tons in production while the crop in the Union of South Africa was also reduced due to drought. Production in Australia was lower because the loss of an export market made it unprofitable to harvest the entire crop. There were also, as has been pointed earlier, difficulties in regard to man-power. There can be no correct estimate regarding the production in Java and the Philippines.

As will be noticed from the foregoing, beet sugar production for 1941-42 is estimated at 10.9 million tons, raw value, against 12.7 million tons in 1940-41. The biggest decline is in Russia, where a large part of the growing beet crop was destroyed during the hostilities last summer and autumn. Russia's production for 1940-41 is estimated at only

882,000 tons compared with 2,747,000 tons in 1940-41. There was a decided effort throughout Europe to increase beet acreage and production last year but unfavourable weather caused yields to be low in some countries and there was a considerable diversion of beets for use as fodder for livestock and for the production of industrial alcohol. For Europe, exclusive of Russia, the increase in sugar production amounted to about 350,000 tons. Axis and Axis-dominated countries had a record production of 5,145,000 tons. France, in particular, was able to report a spectacular increase in production.

Sugar Production in Cuba Decreasing

No official figures regarding the production in Cuba in the year 1941-42 are available but trade estimates put the figure around 3,600,000 long tons. Cuba is reported to be brimming with supplies of sugar and molasses owing to the difficulty in regard to shipments. The British Government had given the assurance that it would be possible for them to absorb a substantial portion of the surplus but, as remarked earlier, difficulties on account of shipping space created a pile up in stocks. There has been a further restriction, however, in the programme of production for 1943-44.

Rationing in the United States

The rationing scheme in the United States, which was announced in May 1942, provides for an allowance of 8 ounces per week to individuals and 80 per cent of normal supplies to industrial users. On this basis the annual consumption is estimated around 3.8 million tons. Thus for the eight months, May to December 1942, the consumption was put at 2.54 million tons. In the first four months, however, when there was no restriction in force total consumption was estimated at 2.3 million tons.

Rationing in the United States was introduced mainly to effect economy in space. It was also intended to release sugar for consumption to other United Nations who had lost their former sources of supply or who were not in a position to get their former supplies on account of a longer shipping haulage. For instance, U.S.A. was committed to send during 1942 to Russia 10 lakhs tons of sugar under Lease-Lend, because the Russian sugar industry, the major portion of which is in the Ukraine, was in the hands of Germany and much of it was probably destroyed by the scorched earth policy. Demand on account of Lease-Lend and the armed forces has increased tremendously, and shortage for civilian population is increasing.*

* Vide "Lamborn's Sugar Market Report", New York, for December 1942.

*International Agreement Renewed by Fourteen Countries
(but not by India)*

The protocol extending the International Sugar Agreement for a period of two years from 1st September 1942, was signed in London by the representatives of fourteen out of the twenty-one signatory countries, viz. Australia, South Africa, Belgium, Brazil, Czechoslovakia, Dominion Republic, Haiti, Netherlands, Peru, Portugal, United Kingdom, the U.S.S.R., the U.S.A. and the Philippines.

As has been already pointed out, India decided to terminate the agreement and she is, therefore, not bound by the terms of the Agreement. According to that Agreement, this country was not allowed to export sugar to any country by sea, other than Burma.

Post-War Reconstruction

The question of post-war reconstruction is the burning topic of the day. How far the question of post-war reconstruction will affect the sugar industry cannot be definitely stated for, as compared to the total volume of production, the free market in sugar is very small and most of the sugar produced is consumed locally. Also, free market prices have no manner of relation to prices prevailing in individual countries, the only cheap producers being the N.E.I. and Cuba. It has been said that questions of fiscal policy have resulted in making sugar a luxury for the poor classes and that if free trade were permitted in sugar it would be possible to ensure cheap sugar for everyone. The argument, it is pointed out, is not applicable to beet sugar as by any criterion it will not be possible for it to compete with cane sugar. Also, political considerations require the continuance of beet sugar production.* For instance, in emergent conditions like the present, countries outside the tropical area should not be made entirely dependent on the tropical producers. It has been suggested that sugar exports should bear a definite relation to imports and that any unduly large exports should not have any unbalancing effect on international trade. As has been already said international trade is very small compared to the total volume of production. In so far as it is not contemplated that beet sugar production should not be actively discouraged efforts should be made to improve the consumption of sugar and a scheme of international regulation instituted. So far as this country is concerned, it stands to benefit in every way. With the increase in exports in wartime we would have

* *Vide* M. P. Gandhi's thesis on "Problems of Sugar in India—Scope and Prospects of Reorganization" submitted for the degree of Doctor of Letters to the Benares Hindu University, expected to be published in 1945. Chapter I deals with "The Indian Sugar Industry in World Perspective." Pp. 1-22.

established our claim for a share in the free market. Our manufacturing costs also would have shown a material decline with the improvement in the recovery percentage, utilisation of by-products, and a larger production.

The world's *per capita* consumption of sugar during the year ending 31st August 1940, amounted to 30.5 lbs. as compared with 30.6 lbs. in the previous year. The peak *per capita* consumption was recorded in 1936-37 when the figure was 32.3 lbs. The total consumption at that time amounted to 30,549,000 tons as against 29,819,000 tons in 1939-40. (*Vide* "Lamborn Sugar Market Report", dated 13th May, 1941.)

Sugar Manufacture on Cottage Industry Scale

A complete sugar making plant on a cottage industry scale has been designed at the Sugar Research and Testing Station, Bilari, working under the Director of Imperial Institute of Sugar Technology. Comprising an improved "kolhu," two pans, four crystallisers and a pedestal centrifugal, the plant deals with 25 to 30 maunds of cane per day.

The plant can be worked by a grower with the help of his family members and bullocks. At a demonstration arranged at the Badaun Exhibition, cultivators and Zemindars saw the plant manufacturing improved quality of sugar. Besides yielding a higher return for the labour involved, the sugar manufactured with the help of this plant is free from excise duty as no motive power is employed in its working.

Another process for the manufacture of khandsari sugar by the open pan system evolved at the Research Station gives about 1½ per cent more sugar of superior quality than that produced by the "deolasujji" clarification process followed so far. The new process has been worked under commercial conditions in medium and large sized plants at the Research Station and was demonstrated to cane growers during the season, 1943-44.

Relation between Labour and Capital in Factories in 1943

During 1943-44, there were several disputes in sugar factories in the U. P. between the management of the factories and the workers, as there was no uniformity in the attitude of the employers towards employees in such important matters as wage rates, terms and conditions of service, dearness allowance, etc. In one dispute between the labour and the management of a sugar mill in Tamkohi, the Labour Commissioner, Mr. J. E. Pedley, made an award whereby employees drawing pay of Rs. 25 were entitled to a dearness allowance of 8 annas

in the rupee ; from Rs. 25 to Rs. 35, 7 annas in the rupee ; Rs. 35 to Rs. 50, 6 annas in the rupee ; from Rs. 50 to Rs. 100, 5 annas in the rupee ; and from Rs. 100 to Rs. 200, 4 annas in the rupee. The Labour Commissioner also recommended a bonus of 2 months' pay as a fair share of the profits of the mill.

The factories should adopt a more liberal attitude in the treatment of their personnel, in order to ensure that they remain satisfied and are happy and prosperous.

Assistance to Industry by Provincial Governments necessary

We would also reiterate here that the most important problem now before the industry is that of improvement of cultivation of cane and of reduction of the cost of production of cane as upon that alone will depend the future stability of the industry in the country. We trust that the Government of India will give their fullest consideration to the observations made in this behalf by the Tariff Board who have recommended that larger grant should be made by the Government for purposes of research work into the question of the improvement of cultivation of cane, with a view to improve the yield of cane per acre, the quality of the cane as also the sucrose contents, etc.

The Industry deserves the fullest support from the various Provincial Governments also in regard to this matter. With a larger revenue accruing to the Government of India from the yield of the Excise Duty on Indian sugar amounting to over 6½ crores of rupees per year, and with the additional revenue accruing to the Provincial Governments of U. P. and Bihar from the levy of the cess on cane consumed by factories at the rate of 0-1-0 per maund, it should be possible for them to earmark larger amounts of money for being spent on objects which would lead to the development of the sugar industry on sound and scientific lines.

As in the case of cultivators whose interests have been generally safeguarded by the Provincial Governments of U. P. and Bihar, by fixing prices of cane calculated to give a fair profit, the industry also needs a measure of sympathy from the Provincial Governments, and it should be allowed to make fair profits like the various other industries of the country. The bulk of capital invested in the industry is national and it naturally expects a reasonable profit on the investment, particularly during the war period, when other industries are also doing very well. Such advantage is, however, denied to it so far, being very heavily controlled, and the industry is unable to lay by large reserves.

Assistance to Industry by Central Government and Legislatures

We hope that the Governments of U. P. and Bihar which have taken such a keen interest in the promotion and development of this industry and have saved it from the impending catastrophe in the 1937 season by passing the Sugar Factories Control Act, will continue to do so, and will also bring pressure on the Government of India to do all that is essential for the reduction of the cost of production of cane and also of sugar, for utilisation of by-products like molasses and bagasse, for spending liberally on research work, for regulating on an all-India basis the further expansion of the industry in a manner which would avoid over-production of sugar which is harmful to all interests concerned, and for developing a suitable Central Marketing Organization comprising all sugar factories in the country with a view to prevent wasteful competition amongst the factories and to ensure a steady supply of sugar in an economical manner at the cheapest rate in order to safeguard the interests of the consumers and incidentally to encourage the consumption of sugar, which is remarkably low at present, by the people of the country, and generally to create favourable conditions for the consolidation of the industry on the lines indicated in the previous pages, in order that the industry may be able to do with the minimum of protective tariff, within a short time, and to feed outside markets with sugar, and relieve their discomfort of having to go without sugar.

We also trust that the members of the Central Legislature will take a keen interest in devising measures for the proper development and regulation of this great national industry, particularly, when the question of the grant of further protection to the industry comes up for consideration, after 1946-47, or on termination of the War, whichever is later.

Need of All-India Marketing Organization

We would emphasise the necessity of the Government of India taking suitable steps to ensure that there is a maximum production of sugar. A bold policy of encouragement is necessary in order to exploit in full the advantageous situation created on account of the loss of two important sources. It is also essential for the Government of India to promote a scheme of an all-India control of the industry so as to ensure full supplies for the country and to enable the industry to capture foreign markets, which she would be able to claim as her own, when some international arrangement is under consideration, after the war. These and other problems, we believe, will be given proper consideration by the Central Sugarcane Committee.

Indian Sugar Industry's Remarkable Progress must be continued

We have already seen how the industry has made a very satisfactory progress since its establishment in 1932.¹ It is now our second largest national industry² with which the interests of no less than 20 million cultivators are intimately associated, which finds employment for about 3,000 University Graduates and 1,00,000 unskilled labourers, which has prevented the annual drain of about Rs. 16 crores for the import of sugar, which has been responsible for the development of the village industry of *gur* manufacture and which represents an investment of national capital estimated at Rs. 33 crores. We have also seen how the magnificent growth and development of this industry has completely vindicated the policy of protection adopted by the State and how it has given an impetus to the development of various other subsidiary industries like manufacture of Power Alcohol. The necessity of further development of this industry is enhanced due to the consideration of supply of carbohydrates of which there is a shortage all over the world. Sugar is one of the cheapest foods, chemically pure and practically sterile of bacteria. It is also an important preserver for other foods. It contains 100 per cent carbohydrate and its value as a prime and vital food is enhanced due to the shortage of carbohydrates. Apart from other considerations, it is essential to develop the industry because it would be possible to meet the increasing requirements of sugar both of the people of the country and the Defence Services as also of some of our neighbouring countries.

We hope and trust that the Government of the country will continue to take a living interest in the welfare of this industry and enable it to occupy an important place among the sugar-producing countries of the world, by spending adequately on research work with a view to ensure a progressive reduction in the cost of production of sugar. A well planned policy is essential for a thorough re-organisation of the industry in order to enable it to occupy its legitimate place in any scheme of post-war reconstruction.***

* In Appendix I, we have given a complete and up-to-date list of sugar factories in India, working as well as projected with full names and addresses of their Managing Agents, details as to their capacity, nearest Railway Station, etc., etc.

** The largest national industry of India, is of course, the cotton textile industry. Vide Indian Cotton Textile Industry—Annual for 1943, published by Gandhi & Co., Jan Mansion, Sir Pherozeshah Mehta Road, Bombay. 380 pages, price Rs. 4-4-0.

*** For a detailed and critical—academic as well as practical—discussion of problems of Indian Sugar Industry vide Mr. M. P. Gandhi's forthcoming publication on "Problems of Sugar Industry in India—Scope and Prospects of Reorganization" being a thesis submitted by him for the degree of Doctor of Letters of the Benares Hindu University, and expected to be published in 1945. (Approx. 400 pages.)

THE INDIAN SUGAR INDUSTRY—1943 ANNUAL

A WORLD SUGAR PICTURE—1944

Need for Acceleration of Sugar Production

Do you know (it would be interesting to know) that :

1. Sugar is one of the cheapest, most universally used and palatable sweetening agent of proved high calorific value, unique for quick conversion into energy, contains 100 per cent carbohydrate and its value as a prime and vital food is enhanced due to the shortage of carbohydrate *in general all over the world.*

2. In view of the shortage of energising foods like potatoes, sugar and cereals which was emphasized at the Hot Springs Conference in 1943, it would be very helpful to encourage production of sugar and cereals which are the most important sources of pure carbohydrate—energising foods.

3. Sugar satisfies a craving that is well nigh universal among mankind. As consumed, it is chemically pure and practically sterile of bacteria. It is an important preserver for other foods. It is the cheapest of all foods and a staple in the homes of the poorest. It supplies a large percentage of the total caloric intake of a large number of people.

4. In 1944, approximately 40 per cent of the world sugar producing areas where either under Axis domination or crippled or destroyed. From a world production of 29,478,000 tons in 1938-39 (consumption being 29,406,000 tons) 11,841,000 tons were produced in those areas.

5. Sugar plants in Philippines and Java, according to unofficial reports which have filtered through, have been stripped of steel, power units, etc., and production has been greatly curtailed.

6. Three of the greatest sugar producing areas—Philippines, Java and Russia—having been either largely destroyed or locked up in the hands of the enemy, and many other areas in Europe being in questionable condition in respect of fields and factories, world sugar shortage may continue beyond 1946.

7. Sugar is the cheapest essential food, at once concentrated, energising, palatable, universally liked, and easy of transport.

8. Looking to the statistical position of production of sugar in India (the *total* production in 1943-44 is over 13,00,000 tons) any drastic rationing of sugar in India appears to be unnecessary, particularly as exports, according to official authorities, are reported to be negligible in quantity.

9. A drive for an "all-out" production of sugar can easily result in production of about 15,00,000 tons of sugar with the existing capacities of factories in India, but to ensure this, it is essential to remove the handicaps on factories, such as shortage of sulphur, coal and other materials like rubber tyres, iron and steel, etc.

10. If the industry continues to be encouraged, India may eventually become a world sugar market, being one of the greatest sugarcane producers.

11. Approximately two-thirds of the sugar produced in the world is from sugarcane and the balance from beet. (90 per cent of the beet sugar comes from the European countries).

12. Production of sugar (including *gur*) in India approximates to 26 per cent of the total *cane* sugar production of the world and to 16 per cent of the *total* sugar production in the world, both from cane and beet.

13. The area under cane in India, i.e. 4 million acres, which is only 2 per cent of the cultivated area in India, is approximately 35 per cent of the world's sugarcane area.

14. Taking *gur* and sugar together, India is the *largest* single sugar-producing country of the world.

15. The total quantity of sugar transported by railways in India per year comes to about one-thousandth of the total quantity transported by railways, viz. 90 crores tons.

16. The Indian Sugar Industry,—the second largest national industry of the country—represents investment of capital to the extent of about Rs. 33 crores.

17. The total annual value of sugar and *gur* produced is about 125 crores.

18. The industry gives employment to 3,000 graduates, 1,00,000 skilled and unskilled workers, and interests not less than 20 million cultivators, and helps to retain in the country a sum of Rs. 16 crores which was being sent abroad.

M. P. GANDHI.

BIBLIOGRAPHY

- The Indian Sugar Industry—Its Past, Present and Future, 1934, with a Foreword by Sheth Walchand Hirachand, 380 pages, Rs. 5-8-0.
- The Indian Sugar Industry—1935 Annual, by M. P. Gandhi, Rs. 2-12-0.
- The Indian Sugar Industry—1936 Annual, by M. P. Gandhi, Rs. 2-12-0 with a Foreword by Lala Karamchand Thapar.
- The Indian Sugar Industry—1937 Annual, by M. P. Gandhi, Rs. 2-12-0 with a Foreword by Sardar Kripal Singh Majithia.
- The Indian Sugar Industry—1938 Annual, by M. P. Gandhi, Rs. 2-12-0 with a Foreword by Dr. Rajendra Prasad.
- The Indian Sugar Industry—1939 Annual, by M. P. Gandhi, Rs. 4-0-0.
- The Indian Sugar Industry—1940 Annual, by M. P. Gandhi, Rs. 4-14-0 with a Foreword by Dr. Syed Mahmud.
- The Indian Sugar Industry—1941 Annual, by M. P. Gandhi, Rs. 4-14-0 with a Foreword by Mr. D. R. Sethi, 300 pages.
- The Indian Sugar Industry—1942 Annual, by M. P. Gandhi, Rs. 5-14-0 with a Foreword by Seth Lalchand Hirachand, M.L.A., 350 pages.
- [Problems of Sugar Industry in India—Scope and Prospects of Reorganisation]—being a thesis submitted by Mr. M. P. Gandhi for the degree of Doctor of Letters of the Benares Hindu University—expected to be published in 1945. (About 400 pages.) Rs. 12-0-0.
- The Indian Sugar Industry—Its Present Problems and Future Needs, being a Memorandum submitted to Tariff Board in May 1937, by Mr. M. P. Gandhi.
- “Can India Export Sugar ?”—being a Memorandum submitted to Tariff Board in August 1937, by Mr. M. P. Gandhi.
- The Indian Sugar Industry—(Protection) Supplement, 1939, by Mr. M. P. Gandhi.
- The Sugar Industry in India—a nine-paged green pamphlet published on the occasion of the Eastern Group Conference session held in India in 1940, at the instance of the Government of India, written by Mr. M. P. Gandhi.

The South African Sugar Journal (Durban), (Monthly).

Facts about Sugar (New York), (Monthly).

Sugar News and Industrial Review (Manila, P.I.), (Monthly).

The International Sugar Journal (London), (Monthly).

Lamborn's Sugar Market Report (New York), issued weekly.

Indian Sugar (Monthly), issued by the Indian Sugar Syndicate, Cawnpore.

2 THE INDIAN SUGAR INDUSTRY — 1943 ANNUAL

Indian Farming (Monthly), issued by the Imperial Council of Agricultural Research.

Indian Information (Fortnightly), issued by the Government of India.

Annual Reports of the Imperial Council of Agricultural Research.

Annual Reports of the Indian Sugar Mills' Association, Calcutta and the Indian Sugar Producers' Association, Cawnpore.

Reports of the Agricultural and Industries Departments, Government of Bihar, U.P., Bombay, Bengal, Madras, and various Indian States.

Philippine Sugar Industry—with a plea for research in Indian Sugar Industry, by C. B. Gupta, 1938, with a Foreword by Mr. M. P. Gandhi.

Proceedings of the Indian Legislative Assembly and Council of State.

All-India Sugar Production Forecast, Final General Memorandum of the Sugarcane Crop and Review of the Sugar Industry in India, in the various issues of the *Indian Trade Journal*, Calcutta.

Report of the Sugar Committee (India), 1921.

Report of the United Kingdom Sugar Industry Inquiry Committee, 1935.

Report (and Evidence Volumes) of the Indian Tariff Board on the Sugar Industry, 1931 and 1939.

Report on the Marketing of Sugar in India and Burma, published by the Government of India, in 1943.

Report on the work of the Imperial Council of Agricultural Research in applying science to crop production in India, by Sir John Russell, D.Sc., F.R.S., 1937.

World Sugar Statistics, F. O. Licht.

The Indian Cotton Textile Industry—Its Past, Present and Future, with which is incorporated the 1937 Annual, by M. P. Gandhi 1937, pp. 240, Rs. 2-12-0. With a Foreword by Sir Purshotamdas Thakurdas.

The Indian Cotton Textile Industry—1938 Annual, by M. P. Gandhi, Rs. 2-12-0. With a Foreword by Shri Subhas Chandra Bose.

The Indian Cotton Textile Industry—1939 Annual, by M. P. Gandhi, Rs. 3-4-0. With a Foreword by the Hon'ble Dr. Kailas Nath Katju.

The Indian Cotton Textile Industry—1940 Annual, by M. P. Gandhi, Rs. 3-4-0. With a Foreword by Mr. Nalini Ranjan Sarker.

The Indian Cotton Textile Industry—1941 Annual, by M. P. Gandhi, Rs. 3-4-0. With a Foreword by Dr. John Matthai, C.I.E.

The Indian Cotton Textile Industry—1942 Annual, by M. P. Gandhi, Rs. 3-4-0. With a Foreword by Sir Chunilal B. Mehta. 150 pages.

The Indian Cotton Textile Industry—1943 Annual, by M. P. Gandhi, Rs. 4-4-0. With a Foreword by Sir Homi Mody. 380 pages.

APPENDIX A

FUTURE OF SUGAR INDUSTRY IN INDIA

(Being a Speech delivered before the Rotary Club, Ahmedabad,
on the 3rd December 1943.)

By M. P. GANDHI

Editor, *Indian Sugar Industry Annual*: Honorary Lecturer, Sydenham College
of Commerce, Bombay

I am very grateful to you for your kind invitation to me to come from Bombay to Ahmedabad for addressing you tonight on a subject of my choice.

May I, with your permission, set aside the formal opening remarks regarding the speaker's hesitation, unpreparedness, confession of inability, etc. and go straight to today's subject, "Future of Sugar Industry in India", and attempt to satisfy your mind at least as much as the commodity satisfies your palate under the present rationing of supplies, of which, I am convinced, there is no necessity in our country which, it may surprise you to be told, is *the largest sugar producing country (including gur) in the world*, whose total production is estimated at over 29 million tons.

Main Sources of Sugar Production—Beet an Ersatz Industry

The two main sources of sugar supplies of the world are sugarcane and beet. Besides these, there are also other plants such as the Canadian Maple and various types of palm trees like palmyra, date and coconut palms, from which commercial sugars are obtained, but they form a very insignificant proportion of the total production and are, therefore, not generally included in the International Sugar Statistics.

Approximately two-thirds of the sugar produced in the world at the present time is from sugarcane, and it would be interesting to note that production of sugar from sugarcane, which is an original gift of Nature, is far cheaper as compared with beet, which may be termed the first *Ersatz* industry, whose *ersatz* character has been obscured by the rapidity with which the beetroot, which was hardly eligible for utilization in the commercial production of sugar, was perfected by careful nursing and development of a new species of beetroot. For over a century, production of sugar from beet has been encouraged as far as possible by various countries, including Great

Vide Mr. M. P. Gandhi's "Problems of Sugar Industry in India—Scope and Prospects of Reorganization",—being a thesis submitted for the degree of Doctor of Letters of the Benares Hindu University, expected to be published in January 1945 (400 pages), Rs. 12-0-0. To be had of Gandhi & Co. (Publishers), Jan Mansion, Sir Pheroza Shah Mehta Road, Bombay. Tel. 25961; 24047.

Britain, by subsidies and preferential duties on national grounds of self-sufficiency. It would be of interest to note that up to 1860, when the beet sugar industry was first organized on commercial lines, the world's *entire* sugar supplies were derived from sugarcane. In recent times, 90 per cent of the beet sugar comes from European countries.

It will be possible for you to form a correct idea of the enormous size of the Indian sugar industry, when I tell you that the present production of sugar (including *Gur* of course) in India approximates to 26 per cent of the total cane-sugar production of the world, and to 16 per cent of the total sugar production in the world, both from cane and beet,* and that the area under cane in India, viz. 4 million acres, which is only 2 per cent of the cultivated area in India, is approximately 35 per cent of the world's sugarcane area. Cane-sugar is mostly supplied by Cuba, Java, Phillippines, Formosa, Hawaii, Australia and Mauritius, while beet sugar is being produced mainly in the U.S.S.R., U.S.A., Germany, Czechoslovakia, Poland and the United Kingdom.

India, Home of Sugarcane

It will interest you to learn that sugarcane, which is found today in practically all tropical countries, originally came from India, and perhaps the first reference to sugarcane is contained in Atharva Veda. There is also a reference, over 3,000 years ago, to a Hindu lover who based his prayer to the object of his adoration so that she might glance upon him with a kindly eye, and in order to symbolise the attraction, he selected the sugarcane. He said :

“With clinging sugarcane I have surrounded thee,
So that thou shalt not be averse to me.”

Unfortunately, it is not recorded whether, as a result of this comparison, this gallant Hindu lover found her yielding and pliable like the leaves of the cane, or stiff-necked and unbending like the stalk. We should have been interested to have one more couplet reporting whether he derived any gain or the overture went in vain.

So much in regard to the antiquity of the sugarcane, of which, like cotton, India is the home.†

* *Vide* “Report on the Marketing of Sugar in India”, published by the Government of India, 1943, pp. 1-3.

† *Vide* Mr. M. P. Gandhi's *The Indian Cotton Textile Annual—Its Past, Present and Future*—with which is incorporated the 1937 Annual—with a foreword by Sir Purshotamdas Thakurdas, K.T., C.I.E., M.B.E., (1937), Rs. 3 and Mr. M. P. Gandhi's *The Indian Sugar Industry—Its Past, Present and Future*, with a foreword by Sheth Walchand Hirachand, (1935), Rs. 5-8-0.

The Present Position of the Sugar Industry

Let us now peer into the present position of the industry and fathom into its future. The Indian sugar industry has been considerably in the public eye during the last decade, since protection was granted to it by the Government of India in 1932. Till then the industry was of a very modest size, but with tariff aid it must be said that the progress it has made during one decade is unique and great, although one could not say that such sudden and rapid development has been according to any pre-conceived plan, policy or programme. Within less than a decade, it has made the country entirely self-sufficient in the matter of sugar, and indeed it has reached a stage when it must consider prospects and possibilities of export of sugar to other countries. It would be pleasing to note that the Indian sugar industry, the largest among the sugar industries of the world, is now *our second largest national industry* (second only to the cotton textiles,* in which Ahmedabad could claim with pride a large share), and represents today an investment of Rs. 33 crores, finds employment for no less than 3,000 University men and one lakh unskilled workers, and helps in keeping within the country a sum of not less than 16 crores of rupees per year, and is responsible for amelioration of the condition of no less than 20 million cultivators whose interests are inseparably connected with its fortunes. Let economists and academicians argue as they like about free trade, free markets, cost of protection and burden on the consumer. One thing, however, is certain to my mind, and that is, that the development of this industry to a commanding position, both in the internal economy of the country and in the world's sugar industry, is an outstanding achievement of the policy of protection which has literally revolutionized the industry, has benefited the consumer and has been of inestimable advantage as an insurance against conditions arising in times of war like the present when we would have had to go completely without any supplies of sugar if we had not been independent of Java. Indeed, it has also been of material help by occupying a strategic position as a supplier of sugar not only to the civil population but also to the Military Services in India, and even to adjacent countries like Afghanistan, Iran, Iraq, Ceylon and the Middle-East.

It wasn't long ago that India was obliged to get her annual requirements of sugar from Java to the extent of about 10 lakhs

* *Vide* Mr. M. P. Gandhi's *The Indian Cotton Textile Industry Annual* for 1943, with a foreword by Sir Homi Mody. Price Rs. 4-4-0. To be had of: Gandhi & Co. (Publishers), Jan Mansion, Sir Pherozechah Mehta Road, Fort, Bombay.

tons, valued at about 16 crores of rupees. Today, fortunately, the position has been completely altered and indeed, with a little active assistance and encouragement, we could supply sugar also to the various allied countries whose sources of supply like Java, Phillipines, and the Ukraine have been cut off since 1941.

The Size of the Industry and its Distribution

To take a bird's eye view of the Indian sugar industry, India has at present 150 sugar mills flung all over the country, 70 being in the U.P., 31 being in Bihar, and no less than 11 in the Province of Bombay, all but two of which latter were established during the last 7 years. The total production of factory sugar in the country (excluding about 1 lakh tons of khandsari sugar and sugar refined from *Gur*) during the last year (i.e. 1942-43) was about 10,70,000 tons, the maximum production having been reached in the year 1939-40, when it was estimated at 12,41,000 tons (excluding about 1½ lakhs tons of khandsari sugar and sugar refined from *Gur*). The production of sugar in 1921-22 was only 28,000 tons, and in 1931-32, the pre-protection period year, it was 1,56,000 tons, as compared with which the increase in production in 1942-43 works out to 700 per cent. It is a remarkable feature of the industry that about 75 per cent of the production of white sugar in the country has been concentrated in the U.P. and Bihar. This is due principally to the facts that 90 per cent of the total cane area is concentrated in these sub-tropical areas and that cane supplies were readily available in large quantities and at low costs in these areas, when tariff protection was first granted to the industry. This led to indiscriminate clustering of the factories in these provinces (sometimes two factories at one station) and it cannot be contended that the distribution of the industry has been ideal. To serve the country better, the industry should have been spread to a greater extent in other parts under proper planning. Even so, thanks to the policy adopted by the Congress Governments in the U.P. and Bihar during 1937-40 of fixing high minimum prices of cane for ameliorating the condition of the cultivators, the development of the industry was accelerated in other parts like Bombay, where the cost of cane is higher, but is compensated by the superior quality and higher yield per acre.

Let us see the development of the production of sugar in the Province of Bombay. As compared with 1932-33, when the production was only 7,000 tons, it has now gone up to about 85,000 tons. However, Bombay is still a deficit province and has to import annually much larger quantity than its own production from the U.P. and

Bihar to meet its estimated normal consumption of about 2,27,000 tons. The quota allotted by the Sugar Controller to Bombay is only 1,88,500 tons which makes curtailment of the normal supplies compulsory. But this is avoidable, as a more liberal allotment is possible in view of the larger production achieved this season and expected in the next season. The total allotment made by the Sugar Controller for the entire country was 9,16,000 tons only during the last year, while the total production of the year was about 11,00,000 tons, and next year's production promises to be still higher in view of the drive for maximum output initiated towards the beginning of the season, and I expect the production to be no less than 12,00,000 tons. I feel, however, that whenever further expansion of the industry is required, which, I expect, will be before long, either as a result of an expected increase in the internal demands (the present consumption being too low) or access to fresh markets, the State should adopt the policy of encouraging the location of new factories in other areas, like for instance, Bombay, Madras, Central India, in the interest of a more balanced development of the industry in the country.

The present position of the industry is that if the existing capacity of all the mills in the country is utilized to the fullest extent, it would be possible for India to produce 15 lakhs tons of sugar without any difficulty, and estimating our present consumption at about 11 lakhs tons (it varies from year to year depending upon prices of sugar and *Gur* and economic conditions of the people), we will have a surplus production of 4 lakhs tons of sugar which can be distributed more liberally, and can be utilized for export to other destinations if any channels are available, after meeting our requirements in full.

*National Dietetic Necessity for more Carbohydrates—Liberal
Rationing of Sugar Possible and Desirable*

There is little point, however, in our reducing our own consumption, particularly as adequate sources of pure carbohydrates and energising foods like sugar, cereals and potatoes are not available in sufficient quantities for the public. Sugar, which is 100 per cent carbohydrate, should be produced and distributed in increased quantities in order to restore quickly the strength and vitality of the people who have been half starved for a long time. It would be interesting to note that sugar is the cheapest and most universally used commodity for making other foods more palatable and nutritive, has a high calorific food value, unique for quick conversion into energy and would be of great use as one of the energy building foods, the necessity of which in the present emergency was emphasized even at the recent United

Nations Food Conference at Hot Springs. In view of the increased production of sugar which has been planned and programmed, a larger allotment and more liberal rationing can easily be made, if the Government only wishes to do so. I hope the Government will give its earnest attention to this suggestion at an early date, particularly as sugar would be very welcome to many individuals who have suffered from the horrors of famine conditions in Bengal and other areas, and provide the quickest aid to the recovery of that energy sapped from them, and which is required to be reinstated immediately to enable them to raise their bags of bones from the ground. While patriotic persons will submit to rational rationing of supplies, no one will be willing to undergo any privation which is avoidable. I therefore wish to urge with all the emphasis at my command, for a more liberal supply of this energising food of high calorific value, to meet the national dietetic necessity, particularly as we can do so, without any trouble, in view of our comfortable position regarding increased production in the years to come.

Sugar Control—Its Working and Effects

Having referred to the present position of the industry, its size, its location, its possibilities and the desirability of a more liberal rationing of sugar which, with a little effort, is possible, you will perhaps expect me to say something regarding the assumption of control over the industry by the Government of India since April 1942, and its effects. The first experiment of a comprehensive control on any commodity by the State in India was in respect of sugar and it was taken on very abruptly by the Government of India without any previous preparation and the results during the first few months were indeed very disquieting. Ordinary channels of trade were discarded and attempts were made to establish fresh agencies. This naturally took time. There was shortage of supplies, and what is more, there was great lack of co-ordination between the Centre and the Provinces and in some places and at certain times there was complete chaos. Efficiency and quickness of action are not reputed to be strong points of a Governmental organization, particularly when it appertains to the commercial sphere, and sugar, in spite of its being a quickly energizing food, did not succeed in transmitting any quick energy into the Control Organization, although conditions today are definitely much better. For some months after the initiation of the control, black markets in a white commodity and bitter prices for a sweet article became the rule in many parts of the country during 1942-43. In various areas sugar could not be had at all even for money,

much less for love. Fortunately, however, this has been remedied to a great extent and for this thanks are due in a large measure to the planning and foresight of Mr. N. C. Mehta, a distinguished member of the Indian Civil Service, who, as you are perhaps aware, hails from this city, Ahmedabad, and in whose hands sugar control has remained right from its inception in April 1942 till today.

Precedents and Previous Papers

Among the various reasons which led to the difficulties experienced by the public in getting supplies of sugar so far, must be stated (1) lack of preparation for taking over control, (2) the inevitable time taken for adjustment of an entirely new administrative machinery, both in the Centre and the Provinces, (3) use of entirely different channels of distribution as a result of the decision to replace the usual traders, (4) lack of co-ordination between the Centre and the Provinces, (5) frequent changes in orders issued from time to time in the light of fresh experience, and (6) the discretion left to the various Provincial Governments to fix quotas and final retail prices of sugar in their areas. This latter presented great difficulties due to lack of any "precedents and previous papers" on the subject.

I wonder whether you have realized how important this factor of "precedents and previous papers" is in Government machinery, which makes it extremely difficult to initiate any action unsupported by the knowledge as to what was done by previous incumbents in similar circumstances in the past. Valuable time is thus lost in finding "precedents", and making references to all manner of persons, interested or disinterested, with a view to share responsibility, as no one seems to be anxious to take any action, far less to initiate quick action and act independently. *Status quo* is given an unusual importance and consequently inaction is preferred, unless it is supported by precedents and initials of half a dozen officers to whom files are made to travel with "Priority" labels, and which sometimes remain unattended to for weeks!!

Apart from this, the major difficulty last year (1942) was that of carriage and transport of sugar to deficit areas owing to shortage of wagons. This has now been overcome by a scientific and well-planned movement of sugar arranged by the Sugar Controller in consultation with the transport authorities, and sugar has been moving freely in recent months to various deficit areas according to programme. Even so, it must be stated that, while the situation has improved greatly and it is possible to get supplies of limited quantities of sugar at controlled rates in most of the big cities and towns, in some of which rationing has also been introduced lately, the position

is yet very deplorable in regard to rural areas where people find considerable difficulties in getting even limited quantities at reasonable prices, and the distressing phenomenon of long queues of men and women and children scrambling for a few ounces of sugar is not unheard of in smaller towns and villages. A better system of distribution is imperative and we may hope, now that some experience has been gained and some "precedent" are available as to how some Provincial Governments have tackled the problem with success, e.g. in Bombay City, other authorities will give their careful attention to this matter and improve their machinery so as to ensure smooth distribution of this commodity in stipulated quantities at scheduled rates, and thus help to maintain its inherent and traditional sweetness for the consumer all over the country, in urban as well as rural areas.

Importance of Gur Industry

To form a correct idea of the enormous size of our sugar industry, it would be also interesting to note that India consumes about 33,00,000 tons of *Gur* made out of cane, palm juice, etc. and this works out to about 75 per cent of the net available supplies of different kinds of sugar in India. The quantity of *Gur* consumed is thus about 3 times the quantity of sugar, and this is a very remarkable feature of India. The sugar content of *Gur* is comparatively low and generally averages from 70 per cent to 80 per cent sucrose as compared with 99 per cent sucrose in factory sugar, but the people in this country have a traditional liking for *Gur* which is supposed to have a number of organic and inorganic salts and is commonly believed to be more nutritive than white sugar.

High Consumption of Sugar in Cities—Need for Increased Ration

Although India is the largest sugar producing country in the world, the *per capita* consumption of sugar works out to only 7 lbs. per year, and of *Gur*, to about 20 lbs. per head per year. The consumption of sugar per head in some of the more important countries in the world, like the United Kingdom, Australia and the U.S.A. averages about 100 lbs. per year. I wish to take this opportunity to pointing out, however, that while the average consumption of sugar is about 7 lbs. only, the consumption in particular areas is strikingly different. In a speech which I delivered at the Rotary Club of Bombay just a year ago, I pointed out that Bombay was by far the largest sugar consuming province, her *per capita* consumption being about 17 lbs. as against the all-India average of 7 lbs. From reliable official statistics which have been made available recently, I am in a position to say that there

are areas, like for instance, port towns, where the *per capita* consumption is far higher, e.g. in Bombay City, where it is 81 lbs. as compared with the Province of Bombay, where it is 17 lbs., in Calcutta City where it is 85 lbs. as compared with the Province of Bengal, where it is only 6 lbs. per year. This would be sufficient to show that although the *per capita* utilization of sugar in India as a whole makes a rather poor comparison with other countries, the consumption in larger towns, particularly in the ports, is more or less of the same order as in some of the most advanced industrial countries like the United Kingdom and the U.S.A. Such a wide difference is due to the relatively higher incomes and higher standard of living of the residents in big cities.

Thus it would be easy to see that although 36 lbs. of sugar per head is allowed in Bombay City by the Government of Bombay per year, Bombay City should be allowed *at least double the quantity*, if past statistics of consumption were, as they ought to be, accepted as the basis of fixation of rations. And as, on Government's own admission, there is plenty of sugar to go round, there is no reason why such increase in ration should not be effected at an early date for minimising the inconvenience of the people of Bombay. I regret I have no statistics of consumption of sugar in Ahmedabad to enable me to make out a case, if there was one, for making Ahmedabad more sweet than at present. I urge the Government to give this matter their sympathetic attention in a spirit of sweet reasonableness.

Varying Uses of Gur and Sugar

It would be interesting to see that, although both *Gur* and sugar are utilized more or less for similar purposes, the proportions of the two products used for different objects differ widely. For example, while nearly 20 per cent of the available sugar is consumed in tea and coffee, the quantity of *Gur* so used forms only about one per cent of the total supply. While 23 per cent of the available sugar is used for making *sharbats* and sweetening of milk, only about 8 per cent of the total available *Gur* is used for the purpose. While about 28 per cent of sugar is used in confectionery, only 11 per cent of *Gur* is so used, and while only 22 per cent of the available sugar is utilized for domestic use, as much as 70 per cent of *Gur* is so utilized.

Future Expansion

A word in regard to the future of the industry. I am sure you will agree with me when I say that considering the present low *per capita* consumption of sugar in the country and the wide differences

in the quantities used per head in urban and rural areas, there is ample scope for further expansion of the industry. An improvement in the purchasing power of the Indian consumer would also increase the consumption of sugar. There is also a noticeable tendency of substitution of sugar for Gurr, particularly among the working classes in urban areas.

In view of these reasons we can look forward to a further development of the industry in the country at no distant date. Besides, India may also be called upon to play the role of an exporter of sugar in large quantities to the neighbouring countries like Afghanistan, Iraq, Iran, Ceylon, Arabia and the Middle-East, in which India enjoys certain special advantages in the shape of freights, long-established business relations, common currency, etc. and where the quality of sugar consumed is similar to that produced in India. Doubts are sometimes expressed as to what will happen to the industry after the termination of hostilities and whether thereafter the phenomenon of large imports will not be repeated. Personally, I feel that there will not be any such danger, for the industry in other sugar producing countries which could compete with us, namely, Java and the Phillippines, will have been very seriously damaged and it will take a long time before they are in a position to rehabilitate their previous capacity and to be able to think of competing with us. What is more, the consumption of sugar in the world is also likely to increase as it did in the years immediately following the last World War and, therefore, to my mind, there is no likelihood of there being any competition from foreign countries for our home market.

In view of the increased production of sugar which is planned and our comfortable position for meeting the internal needs, I see no reason why supplies of sugar for the people should not be made more liberal, particularly in areas which are accustomed to a larger consumption of sugar, more so when there is enough sugar to go round, transportation has been satisfactorily planned, and the quantity earmarked for export is only about 15,000 tons.

Pleasing Prospects of Investment in Sugar Industry

So much in regard to sugar, as a commodity. A word regarding the prospects of investment would not be out of place before an assembly like this, where every single member must be so well placed as to have to think, occasionally if not constantly, of investing his surplus assets in channels which would prove fruitful and which would not be affected adversely owing to the war, at present or at a later date. Sugar, as you all know, is a protected industry and protection

has been guaranteed to it till March 1946. There is no reason to apprehend that even after that date the Government of the country, of whatever political complexion it might be, will take unkindly to an industry which has served the country so well, and will not ensure its adequate protection against imports. There is a growing demand for sugar in the country. There are possibilities for a future expansion owing to fresh markets. This being so, a reasonable and steady return of capital is guaranteed from this industry, which is organized and assured of plentiful supplies of raw material, and of an extensive and expanding market for sugar as well as other byproducts. What is more, the earnings of the industry in provinces outside the U.P. and Bihar are, to my mind, likely to be larger due to the favourable position of these factories in respect of cheaper cane, due to higher yields and superior quality, lower freights owing to proximity to consuming markets, etc. I have no doubt that the industry in Bombay, Madras and some of the progressive Indian States will continue to thrive and will also take its legitimate share in the expansion of the capacity of the industry, whenever such need is felt.

The manufacture of Power Alcohol for purposes of admixture with petrol, from molasses, an important byproduct of sugar, now running to waste, which, unfortunately, was not encouraged by the Government of India a few years earlier in spite of the recommendations of Expert Committees, on one of which, viz. the U.P. and Bihar Joint Power Alcohol Committee, I had also the honour to serve as a member in 1938, may also be established before long, as in Mysore, as the Government of India now appear to be willing to foster its development, in view of its strategic importance* by importation of American plants under Lease/Lend arrangements, and when it materializes, the industry may become still more profitable and of greater service to the country at large.

I hope you will not feel that I have endeavoured to play the role of a Prophet. All I have done is to place before you the thoughts which have been uppermost in my mind, as a result of my detached study of the industry's various fascinating problems, and I must leave you to draw your own conclusions with the same skill and farsightedness which are characteristic of the people of this great city.

* For a detailed discussion of this problem *vide* Mr. M. P. Gandhi's *Sugar Industry Annual* for 1939 1940, 1941, 1942 and 1943. To be had of Gandhi & Co. (Publishers), Jan Mansion, Sir Pheroze Shah Mehta Road, Fort, Bombay. Tel. 25961 and 24047.

USE OUR QUALITY Papers and Strawboards



GUJARAT PAPER MILLS LTD.

(MILLS AT BAREJADI, B. B. & C. I. Rly.)

AHMEDABAD, No. 2



BOMBAY OFFICE :

**JAN MANSION, SIR PHEROZESHAH MEHTA ROAD,
FORT, BOMBAY.**

Telephones :

Office: 25961

: 24047

Res. : 43926

Telegrams :

"KEEN"

BOMBAY.

**LIST OF SUGAR MILLS IN INDIA AND BURMA
WORKING AND PROJECTED
(1943)**

THOROUGHLY REVISED AND BROUGHT UP-TO-DATE

APPENDIX I

**TO THE
INDIAN SUGAR INDUSTRY—1943 ANNUAL**

To be had of:

GANDHI & CO. (Publishers),
Jan Mansion, Sir Pherozeshah Mehta Road,
Fort, Bombay.

Telegrams "Keen", Bombay.

Tel.: 25961; 24047

DETAILED LIST OF SUGAR MILLS (VACUUM PAN) IN INDIA (1942-43)

(Including Gur Refineries)

EXPLANATION :—

Asterisk in the last but one column denotes mills which have also got Gur-refining plants.

† Mills marked thus did not work during this season.

‡ " " are reported to be under construction.

"S" = Sulphitation. "DS" = Double Sulphitation. "C" = Carbonatation. "DC" = Double Carbonatation.

Name of Factory, with full name
and address of Managing
Agents or Proprietors

Location

District

Nearest
Railway
Station

Nearest
Steamer
Station

Daily cane-
crushing capa-
city in tons

BENGAL

1. North Bengal Sugar Mills Co., Ltd., Gopalpur. Rajshahi. Gopalpur, 1250* DS
M/A. M/S. Soorajmull Nagarmull, (Tel. Sugar, B. & A. R.
61, Harrison Road, Calcutta. Gopalpur,
Tele { Grams : Sugar, Calcutta. Rajshahi.)
Phone : B. B. 6101.
2. Setabganj Sugar Mills, Ltd., Setabganj. Dinajpur. Setabganj, 800* DS
M/A. M/S. Soorajmull Nagarmull, (Tel. Sugar, B. & A. R.
61, Harrison Road, Calcutta. Setabganj,
Tele { Grams : Sugar, Calcutta. Dinajpur.)
Phone : B. B. 6101.

APPENDIX I

3.	Shree Radha Krishna Sugar Mills, Ltd., 138, Harrison Road, Calcutta. Tele { Grams : Sugarsweet, Cal. Phone : B. B. 2203.	Beldanga. (Tel. Sugarsweet, Beldanga.)	Murshidabad.	Beldanga, B. & A. R.	Lalgola, B. & A. R.	750*	DS
4.	The Ramnugger Cane & Sugar Co., Ltd., M/A. M/S. Anderson, Wright & Co., 7, Wellesley Place, Calcutta. Tele { Grams : Amasis, Calcutta. Phone : Calcutta 4300.	Plassey P. O.	Nadia.	Plassey, Do.	Do.	500/700	DS
5.	Carew & Co., Ltd., M/A. M/S. Lyall, Marshall & Co., 4, Fairlie Place, Calcutta.	Darsana.	Do.	Darsana, Do.	...	1500	DS
6.	The Deshbandhu Sugar Mills, Ltd., M/A. The Industrial Agency, 58, Patuatuly, Dacca. (Tel. Deshbandhu, Dacca.)	Charsindur.	Dacca.	Ghorashal (Flag), B. & A. R.	Sultanpur- ghat.	250	DS
7.	Kaligunj Sugar Mills, Ltd., M/D. Seth Pannalal Kothari, Head Office : 168-B, Cotton Street, Calcutta. (Phone : B. B. 2789.)	Ka'gunj P. O. (Tel. Chmikul, Arikhola)	Dacca.	Arikhola, Do.	Ronaldsay Ghat, Kaliganj.	150	DS
8.	Dayamayee Jayanti Sugar Mills, Ltd., M/A. Dass Brothers, 30, Strand Road, Calcutta. Tele { Grams : Marvellous, Cal. Phone : Calcutta 3385 (3 lines).	P. O. Kishorganj. (Tel. Dayamayee, Kishorganj.)	Mymen- singh.	Kishorganj, B. & A. R.	...	300/350	DS

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	District	Nearest Railway Station	Nearest Steamer Station	Daily cane- crushing capa- city in tons
9. Rajluxmi Sugar Mills, M/A. Kartick Bose & Sons, Dr. Bose's Laboratory, Ltd., 45, Amherst Street, Calcutta. Tele { Grams : Lactic, Calcutta. Phone : B. B. 415.	Maitra Bagan, Basirhat.	24 Parganas.	Maitra Bagan Ry. Siding, B. B. L. R.	...	75 S
BIHAR					
1. Sakri Sugar Factory of The Durbhanga Sugar Co., Ltd., Registered Office : Lohat P. O. District Darbhanga. Tele { Grams : Sugar, Lohat. Phone : Darbhanga 53A.	Sakri P. O. (Tel. Lohat) Factory : Sakri. Telephone : Darbhanga 53.)	Darbhangā	Sakri, O. & T. Rly.	Semaria Ghat.	700 S
2. Lohat Sugar Factory of The Durbhanga Sugar Co., Ltd., Registered Office : Lohat P. O. District Darbhanga. Tele { Grams : Sugar, Lohat. Phone : Darbhanga 53A.	Lohat P. O. (Tel. Lohat) Factory : Lohat. Telephone : Darbhanga 53A.)	Do.	Pandaul, Do.	Do.	1300 S
3. Ryan Sugar Co., Ltd., M/A. Begg, Sutherland & Co., Ltd., P. O. Box No. 21, Cawnpore. Tele { Grams : Begg, Cawnpore. Phone : Cawnpore 2331.	Ryam Factory P. O. (Tel. Ryam Factory. Tarsarai.)	Do.	Tarsarai, Do.	Do.	779 C

4.	Samastipur Central Sugar Co., Ltd., M/A. Begg, Sutherland & Co., Ltd., P. O. Box No. 21, Cawnpore. Tele { Grams : Begg, Cawnpore. Phone : Cawnpore 2313.	Samastipur. (Tel. Central, Samastipur.)	Do.	Samastipur, O. & T. Rly.	Do.	795	S
5.	New India Sugar Mills, Ltd., M/A. Cotton Agents, Ltd., 52, Queensway, New Delhi. Tele { Grams : Cotagent, New Delhi Phone : New Delhi, 7231.	Hassanpur Rd. P. O. Hassanpur Sugar Mills. (Tel. "Birla", Hassanpur Sugar Mills.)	Do.	Hassan- pur Road	Semaria Ghat.	1300	DS
6.	Motipur Sugar Factory, Ltd., M/D. Seth Haji Abdul Rahim Oosman, 2, Rajmohan Street, Calcutta. Tele { Grams : Muslim, Calcutta. Phone : B. B. 2460.	Motipur. (Tel. Sattar, Motipur and Muzaffarpur. Telephone : Muzaffarpur 65.)	Muzaffarpur.	Motipur, Do.	Paleza Ghat.	1000/1300	DC
7.	Belsund Sugar Co., Ltd., M/A. James Finlay & Co., Ltd., 1, Clive Street, Calcutta. Tele { Grams : Mercator, Calcutta. Phone : Calcutta 4600.	Righa P. O. (Tel. Mitha, Righa.)	Do.	Riga,	Do. Semaria.	850	DS

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	District	Nearest Railway Station	Nearest Steamer Station	Daily cane- crushing capa- city in tons
8. Champarun Sugar Co., Ltd., Barrah Factory, M/A. Begg, Sutherland & Co., Ltd., P. O. Box No. 21, Cawnpore. Tele { Grams : Begg, Cawnpore. { Phone : Cawnpore 2313.	Bara-Chakia P. O. (Tel. Cane, Bara-Chakia.)	Champaran.	Chakia, O. & T. Railway.	Paleza Ghat.	932 C
9. Shree Hanuman Sugar Mills, Ltd., M/A. Shree Hanuman Investment Co., Ltd., 178, Harrison Road, Calcutta. Tele { Grams : Hopwoda, Calcutta. { Phone : B. B. 4502.	Motihari. (Tel. Sugar, Motihari. Telephone No. 36.)	Do.	Do.	Do.	780 DS
10. The Sugauli Sugar Works, Ltd., M/D. Mr. Md. Hanif & Mr. Amjadali, 3 & 5, Rajmohan Street, Calcutta.	Sugauli. (Tel. Taj, Sugauli.)	Do.	Sugauli,	Do.	900 DS
11. Motilal Padampat Sugar Mills Co., Ltd., H. O. Kamla Tower, Cawnpore. Tele { Grams : Motipat, Cawnpore. { Phone : 2532-34.	Majhaulia. (Tel. Motipat, Majhaulia.)	Do.	Majhaulia,	Do.	1000 DS
12. Champarun Sugar Co., Ltd., Chanpatia Factory, M/A. Begg, Sutherland & Co., Ltd., P. O. Box No. 21, Cawnpore. Tele { Grams : Begg, Cawnpore. { Phone : Cawnpore 2313.	Chanpatia. (Tel. Chansuco, Chanpatia.)	Champaran.	Chanpatia,	Do.	870 S

13.	Pursa Sugar Factory, M/A. Pursa, Limited, P. O. Lauriya, Champaran. (Tel. Fuze, Lauriya, Pursa.)	Pakri Lauriya P. O.	Do.	Do.	Do.	500/600	DS
14.	The New Swadeshi Sugar Mills, Ltd., M/A. Cotton Agents Ltd., (1) Imperial Bank Building, Bank St., Bombay. Tele { Grams : Lucky, Bombay. (2) 52, Queensway, New Delhi. Tele { Grams : Cotagent, New Delhi Tele { Phone : New Delhi 7231.	Narkatiaganj. (Tel. Birla, Narkatiaganj.)	Do.	Narkatiaganj,	Do.	900	DS
15.	Harinagar Sugar Mills, Ltd., M/A. Narayanlal Bansilal, 207, Kalbadevi Road, Bombay. Tele { Grams : Maryada, Bombay. Tele { Phone : Bombay 30841.	Ramnagar. (Tel. Maryada, Ramnagar, Champaran.)	Do.	Harinagar,	Do.	1400/1500	DS
16.	Ganga Devi Sugar Mills, Ltd., M/A. Marwari Brothers, Naraipore, Bagaha P. O. (Tele. Ganga, Bagaha.)	Naraipur P. O.	Do.	Bagaha,	Do.	650	DS
17.	Gaya Sugar Mills, Ltd., Managing Director, Mr. Guru Sharan Lal.	Guraru. P. O. Guraru Mills. (Tel. Sugarmills. Telephone : Gaya 78.)	Gaya	Guraru,	E. I. R. Patna.	850	DS

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	District	Nearest Railway Station	Nearest Steamer Station	Daily cane- crushing capa- city in tons
18. The South Bihar Sugar Mills, Ltd., M/A. N. K. Jain & Company, Ltd., 9, Clive St., Calcutta. Tele { Grams : Inredlead, Calcutta. Phone : Calcutta 5977.	Bihta. (Tel. Sugar, Bihta. Phone : Dinapore 30.)	Patna.	Bihta,	E. I. R. Digha.	1200 DS
19. Mohini Sugar Mills Ltd., M/A. Messrs. Karamchand Thapar & Brothers Ltd., 5, Royal Exchange Place, Calcutta. Tele { Grams : Spiritual, Calcutta. Phone : Cal. 2333.	Bikramgunj. P.O. Bikramgunj. (Tel. Spiritual, Bikramgunj.)	Shahabad.	Bikramgunj, A. S. L. Rly.	Sinha 40 Miles Buxar 40 Miles.	700 DS
20. Rohtas Industries, Ltd., M/A. Dalmia Sabharwal Jain & Co., P. O. Dalmianagar (Shahabad) Tele { Grams : Sugar. Phone : Gaya 77.	P. O. Dalmia- nagar.	Do.	Dehri-on-Sone, E. I. R.	Buxar.	1800 DC DS
21. Ganga Deshi Sugar Factory, Ltd., M/D. Behari Lal, Buxar, (Tel. Sugar, Buxar.)	Buxar. P. O. Buxar- Gajadharganj.	Shahabad.	Buxar,	E. I. R. Buxar.	100*

22.	Sitalpore Sugar Works, Ltd. M/D. Ghosh & Dutt, 93, Dharamtolla Street, Calcutta, and Indian Press Buildings, Allahabad. (Local Office : Sahibganj, Chapra).	Sitalpore. (Tel. Kamala, Sitalpore. O. & T.)	Saran.	Sitalpore, O. & T. Rly.	Baghi.	800	DS
23.	Cawnpore Sugar Works, Ltd., Marhowrah Factory, M/A. Begg, Sutherland & Co., Ltd., P. O. Box No. 21, Cawnpore. Tele { Grams : Begg, Cawnpore. Phone : Cawnpore 2313.	Marhowrah. (Tel. Marsuco, Marhowrah.)	Do.	Marhowrah,	Do. Revelganj.	939	DC
24.	Maharajganj Sugar Factory, Prop. M/S. Tulsram Bhagvandas, 61, Keshab Chandia Sen Street, Calcutta.	Maharajganj.	Do.	Maharajganj,	Do.	400	
25.	The Behar Sugar Works, of the Industrial Corporation, Ltd., M/A. Bakubhai Ambalal & Co., P. O. Box 28, Ahmedabad. Tele { Grams : Indus, Ahmedabad. Phone : Ahmedabad 5001. H. O. Bastion Road, Fort, Bombay. Tele { Grams : Indus, Bombay. Phone : Bombay 22497.	Pachrukhi. (Tel. Indus, Pachrukhi.)	Do.	Pachrukhi,	Do. Palezaghat.	1100	DC

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	District	Nearest Railway Station	Nearest Steamer Station.	Daily cane- crushing capa- city in tons.
26. New Savan Sugar & Gur Refining Co., Ltd., M/A. Andrew Yule & Co., Ltd., 8, Clive Row, Calcutta. Tele { Grams : Yuletide, Calcutta. Phone : Calcutta 5282.	Siwan. (Tel. Sugar, Siwan.)	Saran.	Savan, O. & T. Rly.	Savan O. A.	800 DS
27. Indian Sugar Works, M/P. Maulvi Mohd. Abdul Razzaque, P. O. Siwan, Dist. Saran. (Tel. Indian, Siwan.)	Siwan.	Do.	Do.	Do.	700 DS
28. † Siwan Deshi Sugar Factory, Prop. Messrs. Noori Mian & Co., Bhatni (Gorakhpur.)	Do.	Do.	Do.	Do.	Gur only.
29. Bharat Sugar Mills, Ltd., M/A. Cotton Agents, Ltd., 52, Queensway, New Delhi. Tele { Grams : Cotagent, New Delhi Phone : New Delhi 7231.	Sidhwalia, (Tel. Birla, Sidhwalia.)	Do.	Sidhwalia,	Do. Revelganj and Paleza- ghat.	650 DS
30. Sasa Musa Sugar Works, Ltd., M/A. Mousell & Co., Ltd., P. O. Box 2164, Calcutta. (Tel. Diogenes, Calcutta.)	Sasa Musa (Tel. Factory, Sasa Musa.)	Do.	Sasa Musa,	Do. Palezaghat.	600 DS

31. The Vishnu Sugar Mills, Ltd.,
M/A. Bilasrai Banarsilal & Co.,
Agakhan Building,
Dalal Street, Fort, Bombay.
(Tel. Brijbilas, Bombay.)
32. S. K. G. Sugar, Ltd.,
M/A. Dalmia Jain & Co., Ltd.,
P. O. Dalmianagar,
Dist. Shahabad.
- Do. Harkhua, Do. Revelganj. 800 DS
- Do. Hathua, Do. Palezaghat. 1400/1500 DS
- Gopalganj.
(Tel. Vishnu,
Gopalganj.)
- Hathua,
P. O. Mirganj.
(Tel. "Krish-
na", Mirganj
and Chupra.
Phone : Hath-
wa 4 & 5.)

UNITED PROVINCES

1. Purtabpore Co., Ltd.,
M/A. Begg, Sutherland & Co., Ltd.,
P. O. Box No. 21, Cawnpore.
Tele { Grams : Begg, Cawnpore.
Phone : Cawnpore 2313.
2. Noori Sugar Works,
Prop. Noori Mian & Co., Bhatni.
(Tel. Noori, Bhatni.)
3. Shree Sitaram Sugar Co., Ltd.,
M/A. Karamchand Thapar &
Bros., Ltd.,
5, Royal Exchange Place, Calcutta.
Tel. { Grams : Spiritual, Calcutta.
Phone : Calcutta 2331.
- Gorakhpur. Mairwa, O. & T. Rly. Revelganj. 784 DC
- Do. Bhatni, Do. Barhaj. 726 DS
- Gorakhpur. Baitalpur, O. & T. Rly. Barhaj. 861 DS
- Mairwa.
(Tel. Sucrose,
Mairwa.)
- Bhatni.
- Baitalpur,
P. O. Deoria.
(Tel. Spiritual,
Baitalpur,
O. & T.)

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	District	Nearest Railway Station	Nearest Steamer Station	Daily cane-crushing capacity in tons
4. Cawnpore Sugar Works, Ltd., Gauri Factory, M/A. Begg, Southerland & Co., Ltd., P. O. Box No. 21, Cawnpore. Tele { Grams : Begg, Cawnpore. { Phone : Cawnpore 2313.	Gauribazar, P. O., (Tel. Gaursuco, - Gauribazar.)	Gorakhpur.	Gauribazar, O. & T. Rly.	Barhaj. (30 miles).	738 DS
5. Deoria Sugar Mills, Ltd., M/A. Karamchand Thapar & Bros., Ltd., 5, Royal Exchange Place, Calcutta. Tele { Grams : Spiritual, Calcutta. { Phone : Calcutta 2331.	Deoria. (Tel. Spiritual, Deoria.)	Do.	Tahsil Deoria, Do.	Do.	900 DS
6. Sind National Sugar Mills, Ltd., M/A. The Sindhi & Co., Ltd., Deoria, Dist. Gorakhpur.	Deoria. (Tel. National, Deoria.)	Do.	Do.	Barhaj Bazar.	351 DS
7. Saraya Sugar Factory, Managing Partner, S. Kirpal Singh Majithia, Sardarnagar. (Tel. Majithias, Sardarnagar.)	Sardarnagar.	Do.	Sardarnagar, Do.	Barhaj.	2129 DS

APPENDIX 1

13

8.	Diamond Sugar Mills, Ltd., M/A. Murarka & Sons, Ltd., 4-E, Dalhousie Square, Stephen House, Calcutta. Tele { Grams : Canesugar, Calcutta { Phone : Calcutta 1003 & 1349.	Pipraich. (Tel. Diamond, Pipraich, O. & T.)	Do.	Pipraich,	Do.	Do.	700/800	DS
9.	Pipraich Sugar Mills, Ltd., M/A. Mr. Mohammad Ashfaq, B.A., General Manager, (Telephone : Gorakhpur 25.)	Pipraich. (Tel. Pipraich Mills, Pipraich. Telephone : Gorakhpur 25.)	Gorakhpur	Pipraich, O. & T. Rly.	Barhaji.		300	S
10.	The Shankar Sugar Mills, Ltd., M/A. Inderchand Hariram, Captainganj.	Captainganj. (Tel. Shankarji, Captainganj.)	Do.	Captainganj,	Do.	Do.	896	DS
11.	The Punjab Sugar Mills, Co., Ltd., Managers, Messrs. Narang Bros. & Co., Ltd., 3, Montgomery Road, Lahore. Tele { Grams : Narang, Lahore. { Phone : Lahore 3717.	Ghughli. (Tel. Factory, Ghughli R. S.)	Do.	Ghughli,	Do.	Do.	782	DS
12.	Mahabir Sugar Mills, Ltd., M/A. Dwardkadas Bajinath, Siswa Bazar.	Siswa Bazar. (Tel. Mahabirji, Siswa Bazar.)	Do.	Siswa Bazar,	Do.	Do.	620	DS
13.	The Vishnu Pratap Sugar Works, Ltd., M/D. Raja Bahadur Raja Braj Narain Singh, Padrauna Raj. (Tel. Sugar, Rajabazar, Khadda.)	Khadda.	Do.	Khadda,	Do.	Do.	761	DS

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	District	Nearest Railway Station	Nearest Steamer Station	Daily cane- crushing capa- city in tons
14. The Lakshmi Devi Sugar Mills, Ltd., M/A. Messrs. Agarwal & Co., P. O. Chhitauni. (Telephone : Padrauna 3.)	Chhitauni.	Gorakhpur.	Chhitāuni, O. & T. Rly.	Barhaj.	400/600 DS
15. Ishwari Khetan Sugar Mills, Ltd., M/A. Devidutt Surainull, Padrauna, Gorakhpur. Tele { Grams : Khetan, Padrauna. Phone : Padrauna 3.	Lakshmiganj. (Tel. Khetan, Lakshmiganj, Telephone : Padrauna 4X.)	Do.	Lakshmiganj, Do.	Do.	500* S
16. The Ramkola Sugar Mills Co., Ltd., H. O. Nawashahr (Hazara), Via Abbottabad. Tele { Grams : Timber, Nawashahr, Hazara. Phone : Abbottabad 31.	Ramkola. (Tel. Sugar, Ramkola. Telephone : Padrauna 18.)	Do.	Ramkola,	Do. Revelganj.	900 DS
17. Maheshwari Khetan Sugar Mills, Ltd., M/A. Messrs. Devidutt Chaturbhuj, P. O. Ramkola. (Tel. Khetan, Ramkola.)	Ramkola. (Telephone : Padrauna 4.)	Do.	Ramkola,	Do. Barhaj.	777 DS

18. Padrauna Rajkrishna Sugar Works, Ltd., M/D. Kr. Rudra Pratap Narain Singh, “Jagdis Garh”, Padrauna. Tele { Grams : Krishna, Padrauna. Phone : Padrauna 14.	Padrauna. (Telephone No. 6.)	Do.	Padrauna,	Do.	800	S
19. Jagadish Sugar Mills, Ltd., M/A. Raja Bahadur Brijnarayan Singh & Co., Padrauna. Tele { Grams : Jagadish, Padrauna. Phone : Padrauna 15.	Kathkuiyan, Padrauna P. O.	Do.	Kathkuiyan,	Do.	400	DS
20. The United Provinces Sugar Co., Ltd., M/A. James Finlay & Co., Ltd., 1, Clive Street, Calcutta. Tele { Grams : Mercator, Calcutta. Phone : Calcutta 4600.	Seorahi P. O. (Tele. Chini, Seorahi.)	Do.	Tamkahi Rd.,	Do.	925	DS
21. Ganesh Sugar Mills, Ltd., M/A. Poddar Jaipuria & Co., 51, Vivekananda Road, Calcutta. Tele { Grams : Jaipuria, Calcutta. Phone : Burra Bazar 4100.	P. O. Anandnagar (Tele. Ganesh, Pharenda, O. & T.)	Do.	Pharenda,	Do.	800	DS
22. Ledi Sugar Factory, Lessees : E.L.—Baha' Bhargava & Co., P. O. Nichlaul (Gorakhpur.)	Ledi, P. O. Nichlaul. (Tele. “Shyama”, Siswa Bazar.)	Do.	Siswa Bazar,	Do.	80	DS

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	District	Nearest Railway Station	Nearest Steamer Station	Daily cane-crushing capacity in tons
23. The Madho Kanhaya Mahesh Gauri Sugar Mills, Ltd.	Munderwa. (Tel. Jagdis, Munderwa.)	Basti.	Munderwa, O. & T. Rly.	Barhaji.	600/700 DS
24. Basti Factory of The Basti Sugar Mills Co., Ltd., M/A. Narang Bros. & Co., Ltd., 3, Montgomery Road, Lahore. Tele { Grams : Narang, Lahore. Phone : Lahore 4614.	Basti. (Tel. Sugar Factory, Basti.)	Do.	Basti,	Do. Ajodhya Ghat.	875/900 DC
25. Walterganj Factory of The Basti Sugar Mills Co., Ltd., M/A. Narang Bros. & Co., Ltd., 3, Montgomery Road, Lahore. Tele { Grams : Narang, Lahore. Phone : Lahore 4614.	Walterganj. (Tel. Sugar, Walterganj.)	Do.	Walterganj,	Do.	700/800 DS
26. Barhni Sugar Mills, Proprietors : The Delhi Cloth & General Mills Co., Ltd., Delhi. Tele { Grams : Yarn, Delhi. Phone : Delhi 5243.	Barhni. P. O. Ramduttganj. (Tel. Sugar, Barhni, O. & T.)	Do.	Barhni,	Do. Barhni.	800/1000 DS

27.	Shree Anand Sugar Mills, Ltd., M/A. Agarwal Sugar Agents, Ltd., 51, Vivekananda Road, Calcutta. (Phone : Calcutta 4100.)	Khalilabad.	Basti.	Khalilabad,	Do.	Do.	400	DS
28.	Shree Sheodayal Sugar Mills, P. O. Sheodayalganj (Gonda). (Tel. Mansinghika, Nawabganj (Gonda).)	P. O. Sheo- dayalganj.	Gonda.	Katra,	Do.	Do.	100/150	DS
29.	The Seksaria Sugar Mills, Ltd., M/A. Govindram Ramnath & Co., Seksaria Chambers, 139, Meadows Street, Fort, Bombay. Tele { Grams : Fairtrade, Bombay. Phone : Bombay 34627.	Babhnan. (Tel. Seksariaco, Babhnan.)	Do.	Babhnan,	Do.	Do.	800	DS
30.	Nawabganj Sugar Mills Co., Ltd., M/A. Narang Bros. & Co., Ltd., 3, Montgomery Road, Lahore. Tele { Grams : Narang, Lahore. Phone : Lahore 4614 and 3717.	Nawabganj. (Tel. Sugar Mills, Nawabganj, Gonda.)	Do.	Nawabganj,	Do.	Do.	1850	DS
31.	Balrampur Sugar Co., Ltd., Balrampur Factory, M/A. Begg, Sutherland & Co., Ltd., P. O. Box No. 21, Cawnpore. Tele { Grams : Begg, Cawnpore. Phone : Cawnpore 2313.	Balrampur. (Tel. Balsuco, Balrampur. Telephone : Balrampur 37.)	Gonda.	Balrampur, O. & T. Rly.	Barhaj.		768	DS

Name of Factory, with full name and address of Managing Agents or Proprietors.	Location	District	Nearest Railway Station	Nearest Steamer Station	Daily can- crushing capa- city in tons
32. Balrampur Sugar Co., Ltd., Tulsipur Factory, M/A. Begg. Sutherland Co., Ltd., P. O. Box No. 21, Cawnpore. Tele { Grams : Begg, Cawnpore. { Phone : Cawnpore 313.	Tulsipur. (Tel. Talsuco, Tulsipur.)	Gonda.	Tulsipur, O. & T. Rly.	Ajodhya Ghat.	746 S
33. R.B. Seth Lachhmandass Mohanal & Sons Sugar Mills, Hd. Office: Shahalmi Gate, Lahore. Tele { Grams : Laxmansons. { Phone : Lahore 3709.	P. O. Jarwal Road, (Tel. Laxmansons, Jarwal Road. Telephone : Gonda 16.)	Bahraich.	Jarwal Rd., Do.	Ajodhya Ghat.	860 DS
34. The Burhwal Sugar Mills Co., Ltd., Managing Directors : Durga Sanker Dayaram, Collectorgani, Cawnpore. Tele { Grams : Ganeshji, Cawnpore. { Phone : Cawnpore 2758.	Burhwal. (Tel. Ganeshji, Burhwal.)	Barabanki.	Burhwal, O. & T. Rly.	Ajodhya Ghat.	650~ DS
35. Seth Ramchand & Sons Sugar Mills, Lucknow.	Aishbagh. (Tel. Malaco, Lucknow. Telephone : Lucknow 605.)	Lucknow.	Aishbagh, E. I. R.	Do.	793* DS

36.	Ratna Sugar Mills Co., Ltd., M/A. Kashiprasad & Co., 107, Street Field Road, Benares City. (Tel. Ratna, Benares.)	Shahganj. (Tel. Ratna, Shahganj, Jaunpur.)	Jaunpur.	Shahganj,	Do. Balia.	751	DS
37.	Shree Krishna Deshi Sugar Works, Lessees : J. Gupta & Co., Azmatgarh Palace, Benares. Tel. { Grams : Shree, Benares. Phone : Allahabad 269.)	Jhusi. (Tel. Factory, Jhusi. Phone : Allahabad 269.)	Allahabad.	Jhusi, O. & T. Rly.	Do.	400*	DS
38.	§ Tribeni Deshi Sugar Works, Lessee : L. Jainarain Prashad Agarwal, Naini. (Tel. Madho, Naini).	Naini.	Do.	Naini, E. I. R. & G. I. P. R.	Buxar.	200*	S
39.	The Lakshmi Sugar & Oil Mills, Ltd. Head Office : Hardoi. Managing Director—Laha Bansidhar.	Hardoi. (Tel. Lakshmi.)	Hardoi.	Hardoi,	E. I. R. Do.	1400	DS
40.	The Seksaria Biswan Sugar Factory, Ltd., M/A. Govindram Bros., Ltd., Seksaria Chambers, 139, Meadows Street, Fort, Bombay. (Tel. "Fairtrade," Bombay.)	Biswan. (Tel. Factory, Biswan.)	Sitapur.	Biswan, O. & T. Rly.	Ajodhya Ghat.	1200	Double- Tandem

§ Only Gur-refining plant is working.

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	District	Nearest Railway Station	Nearest Steamer Station	Daily cane- crushing capa- city in tons
41. The Oudh Sugar Mill, Ltd., M/A. Cotton Agents, Ltd., Imperial Bank Building, Bank Street, Bombay. Tele { Grams : Lucky, Bombay. } 4 { Phone : Bombay } 27046 & 33745 } lines.	Hargaon. (Tel. Birla, Hargaon Sugar Mills. Telephone : Sitapur 2.)	Sitapur.	Hargaon, O. & T. Rly.	Ajodhya Ghat.	1925 DS
42. The Lakshmiiji Sugar Mills Co., Ltd., M/D. Seth Kishorilal Saheb, Maholi (Dt. Sitapur).	Maholi. (Tel. Lakshmi, Maholi. Telephone : Sitapur 5.)	Do.	Maholi,	E. I. R. Buxar.	1250 DS
43. Aira Sugar Factory, P. O. Aira Estate, Dist. Kheri, U. P. Prop. : Indra Singh & Sons, Ltd., Tatanagar. Tele { Grams : Indrasingh, } { Tatanagar. } { Phone : Tatanagar 18. }	Khamaria. (Tel. "Aira", Lakhimpore- Kheri.)	Kheri.	Lakhimpur, O. & T. Rly.	Bahram Ghat.	650 DS

44.	The Hindusthan Sugar Mills, Ltd., M/A. Bachraj & Co., Ltd., Jeghangir Wadia Building, 51, Mahatma Gandhi Road, Fort, Bombay. Tele { Grams : Shree, Bombay. Phone : Bombay 30027.	Golagokaran- nath. (Tel. Shree, Golagokaran- nath. Telephone No. 1, Golagokaran- nath.)	Do.	Golagokaran- nath	Do.	1800	DS
45.	Rosa Sugar Works & Distillery of Carew & Co., Ltd., M/A. Lyall Marshall & Co., 4, Fairlie Place, Calcutta. (Tel. Ghat, Calcutta).	Rosa. (Tel. Carew, Rosa.)	Shahjahan- pur.	Rosa Jn., E. I. R.	...	700*	DS
46.	H. R. Sugar Factory, Ltd., M/D. Sahu Jagdish Prasad Sahib, Nekpur, Bareilly.	Bareilly. (Tel. Sugar, Bareilly. Telephone No. 33.)	Bareilly.	Bareilly Jn., E. I. R. & O. & T. Rly.	Buxar.	902	DS
47.	The Kesar Sugar Works, Ltd., M/A. Kilachand Devchand & Co., 45/47, Appollo Street, Bombay. Tele { Grams : Seeds, Bombay. Phone : Bombay 26506.	Baheri. (Tel. Kesar, Baheri. Telephone No. 125, Bareilly Exchange.)	Bareilly.	Baheri, O. & T. Rly.	Barhaj.	1280	DS

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	District	Nearest Railway Station	Nearest Steamer Station	Daily cane- crushing capa- city in tons
48. L. H. Sugar Factories and Oil Mills, Ltd., Pilibhit, M/D. Raja Radha Raman, Pilibhit. (Telephone : Pilibhit 32 and 26.)	Pilibhit. (Tel. Crystal, Pilibhit. Phone : Pilibhit 32.)	Pilibhit.	Pilibhit, O. & T. Rly.	Barhaji.	1750 S (Double 'Tandem').
49. Upper Ganges Sugar Mills, Ltd., M/A. Cotton Agents, Ltd., (1) 8, Royal Exchange Place, Cal. Tele { Grams : Lucky, Calcutta. (2) 52, Queensway, New Delhi. Tele { Grams : Cotagent, New Delhi { Phone : New Delhi, 7231.	Sheohara. (Tel. Birla, Sheohara.)	Bijnor.	Sheohara, E. I. R.	Buxar.	1300 DS
50. Seth Shiv Prasad Banarsidas Sugar Mills, Superintending Partner : Seth Banarsidas Sahib, Sahibabad, P. O. Ghaziabad, Dist. Meerut. Residential Prop. : Seth Kundanlal Aggarwal, Bijnor. (Telegrams : Jagmag, Ghaziabad.)	Bijnor. (Tel. Aggarwal, Bijnor.)	Do.	Bijnor,	Do.	1100/1200 DS

51.	§The Ganga Sugar Works, M/A. The Ganga Glass Works, Balawali, Bijnor.	Balawali.	Do.	Balawali,	Do.	...	100 15/2	(Cane) (Gur)
52.	The Dhampur Sugar Mills, Ltd., M/D. Kr. Murlimanohar Saheb, Kothi Bansmandi, Bareilly. (Telephone : Bareilly 53.)	Dhampur. (Tel. Sugarmills, Dhampur).	Do.	Dhampur,	Do.	Buxar.	900	DS
53.	The Vijai Sugar Corporation Ltd., M/D. Lala Budhram Kuthiala, Doiwala, E. I. R.	Doiwala. (Tel. Vijai, Doiwala. Telephone : Dehra Dun 564.)	Dehra Dun.	Doiwala,	Do.	Karach	400*	DC/DS
54.	The Ganga Sugar Corporation, Ltd., College Road, Rawalpindi, Chairman : R.B. L. Isher Dass, M.A., LL.B., M.L.A. Tele { Grams : Gansuco, Rawalpindi. Phone : Rawalpindi 641.	Deoband. (Tel. Sugar, Deoband. Telephone : Deoband 23.)	Saharanpur.	Deoband,	N.W.R.	Buxar.	600	DC
55.	Rai Bahadur Narain Singh Sugar Mills, Ltd., M/D. S.B. Sardar Ranjit Singh, 2, Curzon Road, New Delhi. (Telephone : Delhi 7617)	Lhaksar. (Tel. Sugar, Lhaksar Jn., E. I. Telephone : Roorkee 35.)	Saharanpur.	Lhaksar,	E. I. R.	...	1250	DS

§ Factory is not working since 1937, it is
not certain whether it will work at all.

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	District	Nearest Railway Station	Nearest Steamer Station	Daily cane- crushing capa- city in tons
56. The Lord Krishna Sugar Mills, Ltd., Regd. Office : 85, Lake Road, Lahore. Managing Director : Seth Benarsi Dass Agarwal. Tele { Grams : Bindal, Lahore. Phone : Lahore 4388.	Saharanpur. (Tel. Krishna, Saharanpur. Telephone : Saharanpur 3 and 3A.)	Do.	Saharanpur, N. W. R.	Buxar.	1250 DS
57. Upper Jumna Swadeshi Sugar Mills Co., Ltd., M/A. Hariraj Swarup Rajendralal & Brothers, Muzaffar- nagar. Tele { Grams : Swesugmill, Muzaffarnagar. Phone : Muzaffarnagar 32.	Mansurpur. (Tel. Swesugmill, Mansurpur. Telephone : Mansurpur 44.)	Muzaffar- nagar.	Mansurpur,	Do. Karachi.	1000/1200 DS
58. Upper India Sugar Mills, Ltd., M/D. P. Srikrishna Deva Bhargava, M/A. Mitra Mandal, Khatauli. Tele { Grams : Sugar, Khatauli. Phone : Muzaffarnagar 96.	Khatauli. (Telephone : Muzaffar- nagar 96.)	Do.	Khatauli,	Do.	1149/1400 DS

59.	Amritsar Sugar Mills Co., Ltd., M/A. Amar Singh & Co., Amritsar (Punjab). Tele { Grams : Refiners, Amritsar. Phone : Amritsar 597.	Rohanakalan. P. O. Rohana- mills. (Tel. Refiners, Muzaffarnagar. Phone : Muzaffar- nagar 41.)	Do.	Rohanakalan, Do. Buxar.	1200	DS
60.	Upper Doab Sugar Mills, Ltd., M/A. Hariraj Swarup. Rajendralal, Debi Prasad & Brothers, Muzaffarnagar. Tele { Grams : Swesugmill. Phone : Muzaffarnagar 45.	Shamli. (Tel. Sugarmills, Shamli. Telephone : Shamli 32.)	Do.	Shamli, S. S. L. R. Bombay.	1400	DS
61.	Diwan Sugar Mills, Prop. Messrs. Dhanpatmal Diwanchand, Lyallpur (Punjab). (Tel. Dhanpat, Lyallpur.)	Sakhoti- Tanda. (Tel. Diwanmill, Sakhoti-Tanda, N. W. R. Phone : Muzaffar- nagar 77.)	Meerut.	Sakhoti-Tanda, N. W. R.	716*	DS
62.	Daurala Sugar Works, Prop. : The Delhi Cloth and General Mills Co., Ltd., Delhi. Tel. { Grams : Yarn, Delhi. Phone : Delhi 5243.	Daurala. (Telephone : Meerut 259.)	Do.	Daurala, Do. ...	1250	DC

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	District	Nearest Railway Station	Nearest Steamer Station	Daily cane- crushing capa- city in tons
63. Jaswant Sugar Mills, Head Office: 67/74, Stephen House, Dalhousie Square East, Calcutta. Tele { Grams : Bestluck. { Phone : Calcutta 5660.	Meerut City. (Telegrams : Godfearing. Telephone : Meerut 423.)	Meerut.	Meerut City, N. W. R.	Buxar.	900 DS
64. Ram Luxman Sugar Mills, Managing Proprietors : M/S. Dinanath Nanakchand, Chawri Bazar, Delhi. Tele { Grams : Ensey, Delhi. { Phone : 5004 and R.S. Chiranjilal & Sons, Saddar Bazaar, Delhi. Tele { Grams : Consult, Delhi. { Phone : 5011.	Mohiuddinpur. (Telegrams : Sugarmills, Mohiuddinpur, N. W. R. Telephone : Meerut 365.)	Do.	Mohiuddinpur, Do.	Do.	600/900* DS
65. The Modi Sugar Mills, Ltd., M/A. Rai Bahadur Multanmal & Sons, Ltd. Tele { Grams : Modi Mills, Patiala. { Phone : 525.	Modinagar, Begamabad. (Tel. Modimills, Begamabad. Phone : Meerut 226.)	Do.	Begamabad, Do.	Do.	700/1000 DS
66. Simbhaoli Sugar Mills, Ltd., Chairman : Lt. Sardar Ragbir Singh Sandhanwalia, O.B.E. Tele { Grams : Sandhanwalia, { Simbhaoli, E. I. R. { Phone : Hapur 77.	Simbhaoli. P. O. Baksar.	Do.	Simbhaoli, E. I. R.	...	735 DS

67. The Gokulnagar Sugar Mills Co., Ltd., M/A. Sir Gokulchand Narang & Co., Ltd., 3, Montgomery Road, Lahore. Tele { Grams : Narang, Lahore. Phone : Lahore 4614.	Kichha. (Tel. Sugar Factory, Kichha.)	Naini-Tal.	Kichha, O. T. R. Burhaj	800	DS
68. L. H. Sugar Factories & Oil Mill, Ltd., M/D. Raja Radha Raman Saheb, Pilibhit	Kashipur. (Tel. Crystal, Kashipur.)	Do.	Kashipur, Do. Do.	650	DS
69. The Neoli Sugar Factory, Prop. : The Saraswati Sugar Syndicate, Ltd., M/A. The Neoli Syndicate, Neoli, Dt. Etah. (Telegram : Sucrose, Neoli (Etah).)	Manpore Nagaria. P. O. Neoli. (Tel. Sucrose, Neoli, Etah.)	Etah.	Manpore Do. Burhaj Nagaria,	450/600	DS
70. The Unao Sugar Mills, Prop. : The Standard Refinery & Distillery, Ltd., M/A. Karam Chand Thapar & Bros., 5, Royal Exchange, Calcutta. Tele { Grams : Spiritual. Phone : Calcutta 2331.	Unao.	Unao.	Unao, E. I. R. Buxar. & O. T. R.	Gur only 75	
71. Kamlapat Motilal Gutaiya Sugar Mills, Prop. : Messrs. Kamlapat Motilal, P. B. 69, Cawnpore. Tele { Grams : Lalmoti, Cawnpore. Phone : 2573.	Cawnpore. (Phone : Cawnpore 2315.)	Cawnpore.	Rawatpur, B. B. & C. I. R. K. M. G. Sugar Mills Siding, E. I. R.	Cane 1000 Gur 100	

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	District	Nearest Railway Station	Nearest Steamer Station	Daily cane- crushing capa- city in tons
72. Cawnpore Sugar Works, Ltd., Cawnpore Refinery, M/A. Begg, Sutherland & Co., Ltd., P. O. Box No. 21, Cawnpore. Tele { Grams : Begg, Cawnpore. Phone : Cawnpore 2313.	Cooperganj.	Do.	Cawnpore, E. I. R.	Buxar.	Gur only 73
73. Experimental Sugar Factory, Imperial Institute of Sugar Technology.	Nawabganj.	Cawnpore.	Rawatpur, B. B. & C. I. R.	Do.	34*
74. Baijnath Balmakund Sugar Mills, Prop. : Mrs. Bankey Beharilal Singhanian, Lalbankey St., Cawnpore.	Anwarganj.	Cawnpore.	Anwarganj, B. B. & C. I. Rly.	Burhaj.	Gur only 27
75. Tele { Grams : Lalbankey. Phone : Cawnpore 2489. Amroha Sugar Factory, Prop. : The Ganesh Flour Mills Co., Ltd., Delhi. Tele { Grams : Ganesh Mill, Delhi. Phone : Delhi 6371.	Amroha. (Tel. Ganesh- mill, Amroha.)	Moradabad.	Amroha, E. I. R.	Buxar.	500 DS
76. The Ajudhia Sugar Mills, Prop. : Lakshmiji Sugar Mills Co., Ltd., 24, Mozang Road, Lahore. Tele { Grams : Seth, Lahore. Phone : Lahore 2467.	P. O. Raja-Ka Sahaspur. (Tel. Sugarmill, Moradabad. Phone : Mora- dabad 79.)	Do.	Raja-Ka Sahaspur.	Do.	1305 DS

PUNJAB

1. The Gujranwala Sugar Mills, Co., Ltd., M/A. Narang Bros. & Co., Ltd., 3, Montgomery Road, Lahore. Singh & Co., Ltd., Civil Station, Gujranwala. Tele { Grams : Sugarmills, Gujranwala. Phone : Gujranwala 69. † The Amritsar Sugar Mills, Co., Ltd., M/A. M/S. Amarsingh & Co., P. O. Khalsa College, Amritsar. Phone 597.	Rahwali. (Tel. Sugarmill, Rahwali. Telephone 64.)	Gujranwala	Rahwali, N. W. R.	Karachi.	300/450	DS
2. † The Amritsar Sugar Mills, Co., Ltd., M/A. M/S. Amarsingh & Co., P. O. Khalsa College, Amritsar. Phone 597.	Gr. Trunk Road, Amritsar. (Tel. Refiners, Amritsar.)	Amritsar.	Amritsar,	Do.	Karachi.	Gur only 42 tons.
3. Saraswati Sugar Mills, M/A. The Abdullapur Syndicate Ltd., Abdullapur. M/D. Mr. D. D. Puri. Prop. : The Saraswati Sugar Syndicate, Ltd., 4, McLeod Road, P. O. Box No. 255, Lahore. Tele { Grams : Sucrose, Lahore. Phone : Lahore 3034.	P. O. Abdullapur. (Telegram : Saraswati, Abdullapur. Telephone : Jagadhari 27.)	Ambala.	Jagadhri, N. W. R.	Buxar.	400	DC & DS
4. † The Pattoki Sugar Works, Pattoki, Prop. : Sahu Ram Swarup Ram Bharose Lal Bankers, Civil Lines, Bareilly, U. P.	Pattoki.	Lahore.	Pattoki,	Do.	...	100

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	District	Nearest Railway Station	Nearest Steamer Station	Daily cane-crushing capacity in tons
ORISSA					
1. Aska Sugar Works & Distillery, Prop.: Messrs. Damodar Sahu and Brothers. (Tel. "Massequite", Aska.)	Aska.	Ganjam.	Berhampur, B. N. R.	...	100/120*
2. Jeypore Sugar Co., Ltd., M/D. G. Subba Rao, B.Sc., C.P.E. (Glasgow), Rayagada (Dist. Koraput.) (Tel. Jeysuco, Rayagada.)	Rayagada.	Koraput.	Rayagada,	Do. Vizagapatam.	150
ASSAM					
1. Padmini Sugar Mills, Managing Proprietor: Mr. D. R. Roy, Deopani. P. O. Sarupathar (Sibsagar.)	Deopani. P. O. Sarupathar. (Tel. Padmini Sugar Mills, Deopani. P. O. Barpathar, A. B. Rly.)	Sibsagar.	Sarupathar.	...	60 S
MADRAS					
1. The Vizagapatam Sugars & Refinery, Ltd., Anakapalle, M/A. Messrs Kantilal Vasantlal & Co., Ltd., Bombay. (Tel. "Sugars", Anakapalle.)	Anakapalle.	Vizagapatam.	Anakapalle, M. S. M. Rly.	Vizagapatam.	200 DS

APPENDIX I

31

2.	Etikoppaka Sugar Factory, M/A. The Etikoppaka Co-operative, Agricultural & Industrial Society, Ltd. (Tel. Sugar Factory, Etikoppaka, Narsipatnam Road.)	Etikoppaka.	Do.	Narasapatam Road, Do.	Do.	65	DS
3.	The Sri Rama Sugar Mills, Ltd., Prop. : Raja of Bobbili, Raja of Venkatagiri and Others, Bobbili. (Tel. Sugar, Bobbili.)	Bobbili.	Do.	Bobbili, B. N. R.	...	150	DS
4.	The Sri Rama Sugar Mills, Ltd. (Bobbili), Seetanagram Branch.	Seetanagram.	Vizaga- patam.	Seetanagram, B. N. Rly.	...	300	
5.	The K. C. P. Ltd., Proprietors of Vuyyuru Sugar Factory. (Tel. "Krushna", Vuyyuru.)	Vuyyuru.	Kistna.	Bezvada, M. & S. M. Rly.	...	850/1000	DS
6.	Sree Ramkrishna Sugar Mills, Prop. : Sree Raja Ravu Shree Ram Krishna Ranga Rao Bahadur, Raja of Kirlampudi, Bobbili.	Kirlampudi.	East Goda- vari	Samalkot, Do.	...	120	DS
7.	The Deccan Sugar and Abkari Co., Ltd., M/A. Parry & Co., Ltd., P. B. No. 12, Madras. Tele { Grams : Parry, Madras. Phone : Madras 2983.	Samalkot. (Tel. Deccan, Samalkot.)	Do.	Samalkot, Do.	Cocanada.	Gur CHAR only 40 tons.	

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	District	Nearest Railway Station	Nearest Steamer Station	Daily cane- crushing capa- city in tons
8. The East India Distilleries and Sugar Factories, Ltd., M/A. Parry & Co., Ltd., P. B. No. 12, Madras. Tele { Grams : Parry, Madras. Phone : Madras 2933.	Nellikuppam, (Tel. Distimulo, Nellikuppam.)	South Arcot.	Nellikuppam, S. I. R.	Cuddalore.	1000* DS
9. The India Sugars and Refineries, Ltd., Chairman, Board of Directors : Mr. Rukn-ul-Mulk S. Abdul Wajid, B.A.	Hospet, (Tel. Sugars, Hospet.)	Bellary.	Hospet, M. & S. M. Rly.	...	500* DS
10. Coimbatore Co-operative Sugar Manufacturing Society, Ltd., Hony. Secretary : Mr. V. Rangasami Naidu.	Podanur.	Coimbatore.	Podanur, S. I. Rly.	...	50*
11. Al. Vr. St. Sugar Mills & Distillery, Prop.: Al. Vr. St. Veerappa Chettiar, Zamindar of Devaram, Devakottah.	Tachanallur. (Tel. Sugarmill, Tachanallur.)	Tinnevelly.	Tinnevelly Jn.	Do. Tuticorin.	Gur only 16 (Palmyra Jaggery)
12. T. A. Rm. Lakshmi Sugar Mills, Alvartirunagari. (Tel. Luxmi Sugar, Alvartirunagari)	Near Laks- manatope.	Tinnevelly.	Alvartirunagari.	Tuticorin.	Gur only 6 (Palmyra Jaggery)

13. The Murugappa Sugar Co., Ltd.,
Mailpatti (N. Arcot.)

Mailpatti.	N. Arcot.	Mailpatti, M. S. M. Ry.	Madras.	Cane 75 Gur 10 (Cane and Palmyra Jaggery.)
------------	-----------	----------------------------	---------	---

14. The Southern India Sugar Co.,
Ltd.,
M/A. Ratnams, Limited,
Pugalur Sugar Factory.
(Tel. Sugars.)

Murugappa- puram, Pugalur Sugar Factory P. O.	Trichino- poly.	Pugalur, S. I. Ry.	Madras.	150 to 300
---	--------------------	--------------------	---------	------------

BOMBAY

1. The Saswad Mali Sugar Factory,
Ltd.,
Akluj.
(Tel. Malisugar,
Akluj.)

Sholapur.	...	{ Kurduwadi, G. I. P. Ry. Diksal, G. I. P. Ry.	450/500	DS
-----------	-----	---	---------	----

Hd. Office : Akluj.
M/D. H. B. Girme, Esqr.
Bombay Office : Sir Vithaldas
Chambers,
16, Apollo Street, Fort, Bombay.
Tele { Grams : Malisugar, Bombay.
Phone : Bombay 20134.

2. The Brihan Maharashtra Sugar
Syndicate, Ltd.,
M/A. C. G. Agashe & Co.,
Commonwealth Building,
980, Sadashiv, Laxmi Road,
Poona 2.

Do.	Pandharpur, B. L. R.	300/350	DS
-----	-------------------------	---------	----

Tele { Grams : Shree, Poona
and Akluj.
Phone : 9—138

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	District	Nearest Railway Station	Nearest Steamer Station	Daily cane- crushing capa- city in tons
3. Walchandnagar Sugar Works of Marland Price & Co., Ltd., M/A. The Premier Construction Co., Ltd., Construction House, Ballard Estate, Bombay. (Grams : Walsakhar. Bombay. Tele { Phone : Bombay 26036, 37, 38 and 39.	P. O. Wal- chandnagar (Dt. Poona). (Tel. Walsugar, Baramati and Walsugar, Diksal.)	Poona.	Baramati (D. B. R.) Diksal (G. I. P. R.)	Bombay.	1200 DS
4. The Ravalgaon Sugar Farm, Ltd., M/A. Walchand & Co., Ltd., Construction House, Ballard Estate, Bombay. (Grams : Hincon, Bombay. Tele { Phone : Bombay, 25030, 37, 38 and 39.	Ravalgaon, Nasik. (Tel. Ravalgaon Farm, Malegaon Camp.)	Nasik.	Manmad, G. I. P. R.	Do.	600 DS
5. The Belapur Co., Ltd., Managers: W. H. Brady & Co. Ltd., Royal Insurance Building, Church Gate Street, Fort, Bombay. Tele { Grams : Brix, Bombay. Phone : Bombay 25037.	Harigaon. (Tel. Belapur Company, Belapur Road.)	Ahmed- nagar.	Belapur,	...	1000 DS

APPENDIX I

33

6.	The Maharashtra Sugar Mills, Ltd., M/A. M. L. Dahanukar & Co., Ltd., Industrial Assurance Building, 3rd Floor, Opposite Churchgate Station, Fort, Bombay. Tele { Grams : Sugarmills, Bombay. Phone : Bombay 30825.	P. O. Tilaknagar, Belapur Road. (Tel. Sugarmills, Belapur Road. Phone : Belapur Rd. P. C. O. Extension.)	Ahmed-nagar.	Belapur, G. I. P. R. Bombay.	1000	DS
7.	The Belvandi Sugar Farm, Ltd., M/A. M. L. Dahanukar & Co., Ltd., Industrial Assurance Building, 3rd Floor, Opposite Churchgate Station, Fort, Bombay. Tele { Grams : Design, Bombay. Phone : Bombay 30825.	P. O. Belvandi Sugar Farm. (Tel. Sugr-farm, Belvandi, G. I. P. R.)	Do.	Belvandi, Do.	250/300	DS
8.	The Godavari Sugar Mills, Ltd., M/A. K. J. Somaiya & Sons, Gresham Building, Mahatma Gandhi Road, Fort, Bombay. Tele { Grams : Manikaka, Bombay. Phone : Bombay 31921.	Sakarwadi.	Ahmed-nagar.	Kanhegaon, G. I. P. R.	700/750	...
9.	The Somaiya Sugar Factory, Controlled by Godavari Sugar Mills, Ltd.	Laxmiwadi Via Kopergaon.	Do.	Kopergaon, Do.	700/750.	...

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	District	Nearest Railway Station	Nearest Steamer Station	Daily cane- crushing capa- city in tons
10. Shree Chandeo Sugar Mills, M/A. Messrs. A. H. Bhiwand- wala & Co., 32, Appollo St., Fort, Bombay. (Tele. Jaysugar, Bombay.)	Puntamba. (Tele. Sugarmills, Puntamba, G. I. P. R.)	Ahmed- nagar.	Puntamba, G. I. P. R.	...	350 DS
11. The Ugar Sugar Works, Ltd.	Ugar Khurd.	Belgaum.	Ugar Khurd, M. S. M. R.	Mormugoa Harbour.	500 DS

SIND

1. The Pioneer Sind Sugar Mills Co., Ltd., M/A. Mohatta & Co., Ltd., Wood Street, Karachi. Tele { Grams : Marketwala, Karachi. Phone : Karachi 2021.	Mohatta Nagar. (Tel. Sindsugar, Mohatta Nagar.)	Nawabshah.	Mohatta Nagar, Jodhpur Ry.	...	500 DS
--	--	------------	-------------------------------	-----	--------

N. W. F. PROVINCE

1. The Frontier Sugar Mills & Distillery, Limited. Tele { Grams : Sugar Mills, Takht-i- Bhai. Phone : 27.	Takht-i-Bhai.	Mardan.	Takht-i-Bhai.	...	400 DC/S
---	---------------	---------	---------------	-----	----------

INDIAN STATES

(Kashmir)

State

1. §1 Shree Yuvraj Jammu and Kashmir Sugar Mills, Ltd.,
M/A. Messrs. Karam Chand Thapar & Bros. (Jammu & Kashmir) Ltd.,
Ranbirsinghpura. Ranbirsinghpura, Jammu & N. W. Rly. Kashmir State. 600 Karachi. S

(Punjab)

2. Jagatjit Sugar Mills Co., Ltd.,
M/A. Narang Brothers & Co., Ltd.,
Montgomery Road, Lahore. Phagwara. Kapurthala State. 750 DC
Tele { Grams : Narang, Lahore. Telephone : Phagwara 101.)
3. The Paramjit Sugar Factory, Hamira, P. O. Kapurthala Hamira, Do. Do. 1200/1800
The Mahalaxmi Sugar Mills Co., Ltd., Kapurthala. State.

(United Provinces)

4. Raza Sugar Co., Ltd.,
M/A. Govan Bros. (Rampur) Ltd.,
Rampur State. (Telephone : 291) Rampur. Rampur State. 1000 DS
(Telephone : 332.) Telephone 332.)

§The factory worked in Japeha (Bihar) during the season 1942-43.

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	State	Nearest Railway Station	Nearest Steamer Station	Daily cane- crushing capa- city in tons
5. Buland Sugar Co., Ltd., M/A Govan Bros. (Rampur) Ltd., Rampur State. (Telephone : 291.)	Rampur. (Tel. Buland, Rampur State. Telephone : 276.)	Rampur State.	Do.	Do.	1000 DC

(Travancore)

6. The Travancore Sugars & Chemicals, Ltd., Secretaries & Treasurers: Parry & Co., Ltd., P. B. No. 12, Madras. Tele { Grams : Parry, Madras. Phone : Madras 2983.	Thuckalay. (Tel. Sugars, Thuckalay. Telephone : Trivandrum 280.)	Travancore State.	Trivandrum, S. I. R.	Trivan- drum.	Gur only 18 (Palmyra Jaggery.)
---	---	----------------------	-------------------------	------------------	--------------------------------------

(Mysore)

7. Mysore Sugar Co., Ltd., H.O. Sri Jayachamaraja Wadiyar Road, Bangalore City. Tele { Grams : Mysugar, Bangalore. Phone : 2133.	Mandya. (Tel. Mysugar, Mandya.)	Mysore State.	Mandya, M. S. R.	...	1400 DS
--	--	------------------	------------------	-----	---------

(Bombay)					
8. The Kolhapur Sugar Mills, M/A. The United Agents, Ltd., Shahupuri, Kolhapur. Tele { Grams : Shurgaoker Bros. Phone : 298 (Kolhapur).	Kolhapur. (Tel. Sugar Mills.)	Kolhapur State.	Kolhapur, M. & S. M. R.	500	DS
9. The Phaltan Sugar Works, Ltd., M/A. Mafatlal, Apte & Kantilal, Ltd., Sakharwadi, Satara.	Sakharwadi, Phaltan State. (Tel. Sakhar, Phaltan.)	Phaltan State.	Nira, Do. Bombay.	625/650	
10. Krishna Sugar Mills, Ltd., M/A. M/S. Vinchurkar & Co. Kittur, Via Kudchi. (Tele. Krishna Sugar, Kudchi.)	Kittur.	Miraj Jr. State.	Kudchi, Do. Bombay.	200	DS
(Baroda)					
11. The Gandevi Sugar Works & Distillery Co., Ltd., M/A. Bachhray & Co., Ltd., Jehangir Wadia Building, 51, Mahatma Gandhi Road, Fort, Bombay. Tele { Grams : Shree, Bombay. Phone : Bombay 30027.	Gandevi. (Tel. Sugarworks, Gandevi.)	Baroda State.	Gandevi, G. B. S. R. <i>via</i> Billimora, B. B. & C. I. Rly.	200/250	DS
(Central India)					
12. The Jaora Sugar Mills, Pro. Kalooram Govindram, Jaora, C. I. (Telegram : Sugar, Jaora.)	Jaora	Jaora State.	Jaora, B. B. & C. I. R.	600	DS

Name of Factory, with full name and address of Managing Agents or Proprietors	Location	State	Nearest Railway Station	Nearest Steamer Station	Daily cane- crushing capa- city in tons
13. Bhopal State Sugar Industries, Chairman : The Economic Adviser, Govt. of Bhopal.	Sehore.	Bhopal State.	Sehore, G. I. P. R.	...	750 DS
14. †Shri Lakshmi Narayan Sugar Works, Ltd., M/A. Gupta Bros & Co., Harpalpur (Budelkhand), C. I.	Harpalpur. (Tel. Laxmichini, Harpalpur.)	Alipura State.	Harpalpur, G. I. P. R.	...	100 S
15. The Gwalior Sugar & Co., Ltd., Dabra (Gwalior), M/A. Govan Brothers, Ltd., Scindia House, New Delhi.	Dabra	Gwalior State.	Dabra, G. I. P. R.	...	750 DC & DS
16. †Maharani Parbati Sugar Mills, Ltd., (Tel. Sugarmills, Sarangpur.)	P. O. & Tel. Office Sarangpur.	Devas State, J. B.	Bercha,	...	100
17. †Ratlam Sugar Mills Co., Ltd., M/A. Sir Gukulchand Narang & Sons.	Ratlam	Ratlam State.	Ratlam, B. B. & C. I. R.	...	500
18. †The Mahidpur Sugar Mills, Pro. : Seth Govindramji, Jaora.	Mahidpur Road.	Holker State.	Mahidpur Road, B. B. & C. I. R.	Bombay	300
19. †Sri Ganganagar Sugar Mills, Ltd., M/A. Seth Sunder Singh.	Ganganagar (Rajputna)	Bikaner State.	...	...	600 DS

§Worked for a few days only.

20.	The Mewar Sugar Mills, Ltd., M/A. Dhandhan Kedia & Co., Bhupalsagar (Udaipur State).	Bhupalsagar. (Tel. Sugarmill.)	Udaipur State.	Bhupalsagar, Me. S. R.	Bombay	300	DS
(Hyderabad)							
21.	The Nizam Sugar Factory, Ltd., M/A. H.E.H. The Nizam's Industrial Trust Fund, Represented by the Hyderabad Construction Co., Ltd., Abid Road, Hyderabad. (Telephone : Hyderabad (Deccan) 2766.)	Bodhan (Tel. Sugar.)	Hyderabad State.	Bodhan Sugar Factory Siding Station (Nizam St. Ry.)	...	1300/1500	DS
BURMA							
District							
1.	†The Sahmaw Sugar Factory of the Burma Sugar Co., Ltd. (Tel. Colberfeld, Rangoon).	Sahmaw. (Tel. Shortis, Sahmaw.)	Mytkyina.	Sohmaw, Burma Rly.	...	900	DS
2.	†New Burma Amrit Sugar Mills, Ltd., M/A. Amritlal Ojha & Co. (Burma) Ltd., 619, Merchant Street, Rangoon. (Tel. Ojhaco, Rangoon.)	Hninpale. P. O. Bilin. (Tel. Amrit Sugar Works)	Thaton (L. Burma.)	Hninpale, Do.	...	400	DS
3.	†The Zeyawadi Sugar Factory, Ltd., M/D. Chandradeva Prakash Sinha, Esq., Zeyawadi (Burma). (Tel. Prakash, Rangoon.)	Zeyawadi. (Tel. Sugar, Zeyawadi.)	Toungoo.	Zeyawadi.	Rangoon.	1000/1200	DS

**PROVINCIAL DISTRIBUTION
OF
SUGAR MILLS IN INDIA
(1943)**

Province				Cane Facto- ries	Gur Refineries only	TOTAL
Bengal	...	...		9	...	9
Bihar	...	...		31	1	32
United Provinces	...	...		73	3	76
Punjab	...	...		3	1	4
Madras	...	...		11	3	14
Bombay	...	...		11	...	11
Assam	...	...		1	...	1
Orissa	...	...	...	2	...	2
Sind	...	...		1	...	1
N.-W. F. P.	...	...		1	...	1
Indian States	...	...		20	1	21
TOTAL ...				163	9	172

Burma	3	...	3
-------	-----	-----	-----	---	-----	---

No. of Factories (including Gur Refineries) actually
working in the season 1942-43 was about ... 156

No. of Factories (including Gur Refineries) that did not
work during the season 1942-43 (Factories under
construction included) ... 16

THE INDIAN SUGAR INDUSTRY

(1944 ANNUAL)

Editor: Mr. M. P. GANDHI,

Proprietor, Bombay Commercial Corporation ; Bombay Agent, Gujarat Paper Mills, Ltd ; Honorary Lecturer, Sydenham College of Commerce and Economics ; (Formerly, Controller of Supplies, Bengal Circle, Government of India ; Secretary, Indian Sugar Mills Association ; Indian Chamber of Commerce, Calcutta ; Federation of Indian Chambers of Commerce and Industry ; Director, Indian Sugar Syndicate, Ltd. ; Member, U. P. and Bihar Sugar Control Board ; Member, U. P. and Bihar Joint Power Alcohol Committee ; Member, Bihar Labour Enquiry Committee ; Chief Commercial Manager, Dalmia Group of Industries, comprising Sugar, Cement, Paper, Coal, etc.)

Vol. X, 306 Pages

AUGUST 1945

Rs. 6/8; By V.P.P. Rs. 6/14

To be had of: **GANDHI & CO. (Publishers),**
Jan Mansion, Sir Pheroza Shah Mehta Road, Fort, BOMBAY.

Telephones :

Office : 25961, 24047 ; Res. : 43926.

Telegrams :

"KEEN" BOMBAY.

REPAIRS TO MILL AND WORKSHOP MACHINERY OF ALL
KINDS UNDERTAKEN. CLOSE GRAIN CAST IRON WORK
OF ANY DESCRIPTION WEIGHING UPTO THREE TONS
EXECUTED WITH PROMPTNESS AND SATISFACTION.

**SPECIALISTS IN THE MANUFACTURE OF
DIESEL SPARES AND VARIOUS TYPES OF
MACHINE TOOLS**

INQUIRIES SOLICITED.

**INVESTA MACHINE TOOLS
& ENGINEERING CO. LTD.**

Head Office:

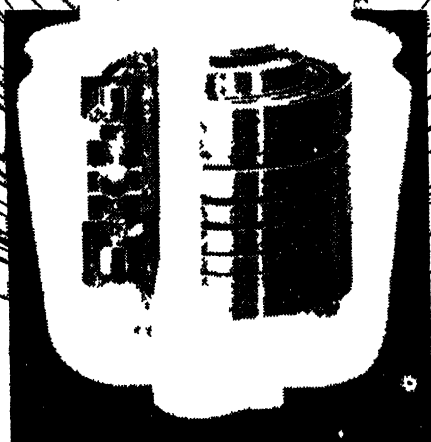
EWART HOUSE, BRUCE
STREET, FORT, BOMBAY

Works & General Office:

CLERK ROAD, PAIS
STREET, BOMBAY 11

SKF BEARING UNITS FOR

Centrifugals



The modern SKF bearing unit for centrifugals: Last longer as the thrust bearing is more robust than in earlier designs. Decrease expenditure on renewal for when one of the three bearings in a unit needs renewing, a complete new bearing is fitted at less expense than by providing one of the old bearing combination with new sleeves.

The

SKF BALL BEARING CO., LTD.

P. O. BOX 115, CALCUTTA · P. O. BOX 71, BOMBAY · P. O. BOX 46, MADRAS

The only Indispensable & Authoritative Annual Reference
Book for the Indian Sugar Industry

THE INDIAN SUGAR INDUSTRY—

(1944 ANNUAL)

Vol. X

Editor: Mr. M. P. GANDHI

306 Pages: August, 1945 Price Rs. 6/8; V.P.P. Rs. 6/14. Sh. 12.

— CHIEF FEATURES —

- ❖ Retrospects and Prospects of the Sugar Industry in India in 1943-44 and 1944-45, and position in world economy.
- ❖ *Modus Operandi* of the Indian Sugar Syndicate Ltd., Cawnpore.
- ❖ "The Sugar Industry at a Glance", containing 46 Statistical Tables pertaining to production and consumption of Sugar, imports and exports of Sugar, Production of Gur, Cane-crop, Duty and Revenue from Sugar, etc.
- ❖ The Sugar Industry (Protection) Act, 1939, Protective Duties Continuation Act, 1944, and Sugar (Temporary Excise Duty) Order, 1943. (Texts).
- ❖ The Sugar and Sugar Products Control Order, 1943, of the Government of India, with the latest amendments, the Gur Control Order, 1943, and other important Notifications.
- ❖ *Personnel* of U. P. and Bihar Sugar Control Board, 1944-45.
- ❖ Details re. U. P. & Bihar Sugar Commission, Cawnpore.
- ❖ Necessity of Regulation of Industry on an All-India basis.
- ❖ Discussion on Export Prospects, Sugar Control Policy, and Rationing.
- ❖ *Personnel* and functions of Central Sugarcane Committee, 1944.
- ❖ Capital and Dividend Statement of Sugar Mills. (Latest.)
- ❖ *Complete and up-to-date list of Sugar Mills*, working and projected, with addresses of Managing Agents, information regarding crushing capacity etc.

Extract from Reviews of 1943 Annual

Journal of Scientific and Industrial Research, New Delhi, February 1945.

"Mr. M. P. Gandhi's work, published every year, is perhaps the best review of the progress of the sugar industry in India in its fiscal as well as technical aspects. The 1943 *Annual*, like its predecessors, abounds in very instructive statistical tables and theses on topics of great importance to the Industry.

The problem of the utilization of by-products and power alcohol have been treated with insight and comprehension.

The publication of the *Annual* is eagerly looked for by everyone interested in the Industry. This is perhaps the highest testimony to its value."

Another Recent and Authoritative Publication:

THE INDIAN COTTON TEXTILE INDUSTRY—1944 ANNUAL

Editor: M. P. GANDHI

300 Pages: June, 1945. Price Rs. 5/-; V.P.P. Rs. 5/6; Foreign Edition Sh. 9/-

Published in June, 1945

**The only Authoritative & Indispensable Annual Reference
Book for the Indian Cotton Textile Industry**

The Indian Cotton Textile Industry— (1944 Annual)

Vol. VIII

Editor : Mr. M. P. GANDHI

300 Pages : Rs. 5 : V.P.P. Rs. 5/6. June, 1945

CHIEF FEATURES :

- ◆ Retrospects and Prospects of the Indian Cotton Textile Industry, during the War period and Post-War period.
- ◆ Organization of the Cotton Textile Directorate of the Industries and Civil Supplies Department of Government of India, 1945 and *personnel* of Cotton Textile Board, its various Sub-Committees, and the All-India Handloom Board.
- ◆ "The Cotton Industry at a Glance" giving over 16 authoritative and up-to-date Statistical Tables relating to the Industry.
- ◆ Latest Tariff on Piecegoods and Yarn, and Text of Cotton Yarn and Cloth (Control) Order, 1943 with latest amendments thereto, and Cotton Cloth Movements Control Order, 1943 inclusive of General Permit No. I, and references to other allied Control Orders.
- ◆ *Per capita* consumption of piecegoods in India.
- ◆ Review of Govt. measures for Control of Prices of Cloth and Yarn for distribution, production, availability of Standard Cloth, etc.
- ◆ Present financial and economic position of the industry.
- ◆ Scope of Export and Import of Piecegoods in post-war period.
- ◆ Target of further development of industry in post-war period.

TWO APPENDICES :

- ◆ An elaborate and up-to-date Appendix regarding cultivation of superior variety of Cotton, Exports of Cotton, Imports of Cotton, Prices of Cotton, Consumption of Cotton in Indian Mills, etc.
- ◆ A detailed Appendix regarding present position and post-war prospects of Handloom Industry.

LIST OF COTTON MILLS IN INDIA, 1945

*Complete and up-to-date list of Cotton Mills working in India, with names and addresses of Managing Agents, number of Spindles, Looms, etc.
(Published separately as a companion volume, Re 1.)*

Extracts from Reviews of 1944 Annual (Vol. VIII) :

"Times of India", Bombay, 10 July, 1945 :

"An informed and interesting analysis of the future of the Indian Cotton Textile Industry is contained in the 1944 Annual."

"Commerce", Bombay, 7 July, 1945 :

"Mr. Gandhi's survey of the working of the Cloth Control is comprehensive, and no aspect of it is left out. His conclusions in many cases are sound and realistic."

"Capital", Calcutta, 9 August, 1945 :

"This is a valuable reference book containing a great deal of statistical data and information about an industry of importance to India."

PREFACE

The 1943-44 season established a war-time record for production of sugar as a consequence of the drive for maximisation of sugar production in India in spite of numerous handicaps of various kinds due to the war-period. The production in 1944-45, however, could not be maintained at this level and indeed recorded a precipitate fall from the record production of 12,16,400 tons in 1943-44 to only 9,85,100 tons in 1944-45. The fall was due largely to shortage of cane and the low minimum prices of cane fixed by the Governments of U. P. and Bihar, coupled with the system of a compulsory deduction of two annas per maund of cane for investment in Defence Saving Certificates. Later in the season, this compulsory deduction was abolished, and this gives reason to hope for some improvement in the forthcoming season. The cane crushing season both in U. P. and Bihar opened late and closed early in 1945. The production in Bengal also went down considerably due to lack of cane. A decrease of production is also to be recorded for Bombay, due partly to the legislation for compulsory cultivation of food crops, under the Bombay Growth of Food Crop Act, 1944, even in sugar factory areas.

The area under cane for the forthcoming season is well over 41 lakhs acres (which is of course less than 2 per cent of the cultivated area in India) and with the measures contemplated by the Government for the restriction of manufacture of *gur* in Reserved areas of factories in U. P. and Bihar, (on the understanding that factories will take over all cane in these areas for crushing) in order to maximum the production of sugar, and the reported possibility of fixing higher price for sugar manufactured in Bengal in the 1945-46 season, we feel that the production of sugar in the 1945-46 season, can be safely put at over 11 lakhs tons.

Liberal Ration of Sugar possible

In spite of a potential crushing capacity for production of 15 lakhs tons of sugar from the existing 150 factories, we have produced a very much smaller quantity of sugar during the last few years, due to shortage of cane, disorganisation in transport, lack of raw materials, short crushing season, etc. With the revival in the demand for sugar as a result of the increase in the purchasing power of people in the war-period, the congregation of people in cities and the increased tea-habit, we may well need a larger quantity of sugar, both for meeting internal demand and for export to adjacent countries, like Burma, Ceylon, Persia, Middle East, etc. Although according to present official pronouncements, rationing of food might remain for a couple of years, we feel that it might be possible to liberalise the ration of sugar all over the country, if with the removal of war-time restrictions on transport, and the pursuance of a well regulated drive, we are able to produce more sugar in and from the forthcoming season.

Expansion of Industry Inevitable

Such increased production, we are convinced, is also necessary for improving the nutrition and standard of living of the people. And sugar, which is an energising food of high calorific value containing 100 per cent

carbo-hydrates, would be very useful in this respect, if larger quantities are made available to the people. We, therefore, feel that before long India will have to think of utilising her present capacity fully and also of establishing more sugar factories in India both for internal requirements and export. Particularly because, the world sugar production has gone down from its pre-war level of 30 million tons to only 19 million tons in 1944-45, and it will take a long time for the old level of production to be established, due to the damage and dislocation caused in various sugar producing countries like Java, Philippines, Russia, Czechoslovakia, etc., India has an opportunity of playing a more important role in the sugar-world by supplying large quantities of sugar.

Need for Dispersal of Industry

We feel that, when this opportunity for expansion of the industry comes, it should be properly availed of for a suitable dispersal of the industry all over the country. As is well known, there is a concentration of the sugar factories in U. P. and Bihar, and in order to achieve a balanced development of industry and to relieve the strain on transport services as much as possible, we suggest that any further expansion of the industry should be outside U. P. and Bihar, particularly, in Bombay, Madras, Bengal, and other areas which are areas of deficit production. To this end, we recommend that a central licensing system for establishment of factories should be introduced at an early date by the Government of India.

Protection to Sugar must be Continued

The period of the present protection accorded to the sugar industry will expire on 31st March, 1946. It is not possible, however, under the present abnormal conditions, to consider with precision the quantum of protection required for the future. We suggest, therefore, that the present protection should be continued for a period of three years, towards the end of which a Tariff Board should be appointed to make the necessary enquiries and to recommend the quantum of protection and the period for which it will be necessary. When that time comes, we hope the Tariff Board and the Government will appreciate the great part played by the industry in supplying sugar, during the last few years, particularly in the war-period, without any attempt at profiteering. Indeed, it should also be recognised that under the Government Control, the industry had no opportunity of having suitable reserves for replacement and renewal of machinery. As a matter of fact, owing to the short crush during the last year, several factories will be unable to declare dividends, due to the increased cost of manufacture which was not fully allowed for in fixing the prices of sugar in the last season. We hope and trust that the Government will view this matter liberally and fix a suitable selling price of sugar, which will allow the industry to earn a fair profit on the investment.

Reduction in Cost of Production of Sugar

We also hope and trust that, as the period of expiry of protection is drawing near, the Government of India as well as the Provincial Governments in full co-operation with the industry will redouble their efforts for decreasing the cost of production of sugar and direct their immediate attention to the most important measures towards that end, viz., decreasing the cost of cul-

tivation of cane which accounts for over 50 per cent of the price of sugar, by increasing the yield of sugarcane per acre from its present average of 15 tons to at least 30 to 35 tons by provision of irrigation which alone is calculated to increase the production by over 50 per cent, by better manure, artificial fertilisers and improved seeds accompanied by sound cultural practices, by better implements, control over diseases and pests, and by a proper utilisation of molasses in the manufacture of power-alcohol for admixture with petrol. These problems have been discussed in detail in this *Annual*.

Increased Expenditure on Research Essential

To this end, we also suggest with all the emphasis at our command that the Government of India should earmark a sum of As. 3 per Cwt. from the excise duty on sugar (in place of 1 anna at present) for carrying on research work, and should place the amount at the disposal of the Indian Central Sugarcane Committee. The fund thus available will be of the order of about 40 lakhs of rupees which will work out to Re. 1 per acre, but the expenditure of this amount will, we are convinced, bring multiple profits to agriculture and indeed also to industry.

Manufacture of Power Alcohol

The U.P. and Bihar Joint Power Alcohol Committee (of which the writer had the honour of being a member) strongly recommended in 1938 the utilisation of molasses for the manufacture of power alcohol. Little progress has been made in this matter till date. One peculiar feature, however, of a recent development in utilisation of molasses in the United Provinces has attracted our attention, viz., the production under the orders of the U.P. Government, by a few distilleries established in 1944, of rectified spirit known as fuel alcohol in place of power alcohol and its utilisation as a straight fuel (without admixture with petrol) by motor lorries in the U.P. instead of the use of power alcohol mixture with petrol in the proportion of 15 or 20 or 25 per cent. We only hope that this development in the U.P. was a war-time expedient of a temporary nature. We fervently trust that the Government will at once switch on to the manufacture of power alcohol (as distinguished from rectified spirit) and adopt the practice of compulsory admixture of such power alcohol with petrol as a motor fuel, as in other areas, e.g., Mysore, Hyderabad, Bombay, and thus encourage the development of power alcohol, which besides reducing the cost of production of sugar by a proper utilisation of one of the chief by-products of the industry, will enable the establishment of an industry which will reduce the dependence of the country on petrol, a very large bulk of which is imported annually from outside India.

Optimum Production and Consumption of Sugar

We also feel that it will be possible to increase the production of sugar in the country considerably without increasing the area under cane by increasing the yield of sugarcane per acre. The question of the scope of optimum production and consumption of sugar in India has been discussed in considerable detail in Mr. M. P. Gandhi's forthcoming thesis on, "Problems of Sugar Industry in India—Scope and Prospects of Re-organisation", (375 pages) with a foreword by Sir Purshotamdas Thakurdas, K.B.E., C.I.E., and we invite the readers' attention to this volume which will be published sometime in October, 1945.

We regret that, as in the last year, we have not been able to publish this *Annual* as early in 1945 as was expected. The difficulties of the war-period, the emergence of fresh problems and desire to pass them under review have been partly responsible for the delay of the publication. Another important cause of the delay has been in getting permission from the Central Government for increasing the meagre quota of pages previously sanctioned under the Paper Control (Economy) Order, for this *Annual*. We are glad that ultimately we have succeeded in our efforts and it has been possible for us to publish this year's *Annual* in its present size which compares very favourably with that of the last year. We also hope that in view of the importance of this publication, we will be allowed to return to the normal size of 1943 *Annual*, when we publish our 1945 *Annual*, if the Paper Control (Economy) Order is still operative.

It affords us very great pleasure to find that this *Annual* is continually growing in popularity and that there has been an increasing measure of appreciation of the usefulness of the publication, ever since it was first published in 1935. We are, doubtless, happy at the very highly appreciative references made in the press regarding the usefulness of this *Annual* as the only book of reference containing an authoritative and comprehensive study of the problems of the sugar industry, and discussing all important problems before the industry in an unbiassed, but critical manner, and giving a lead in making practical suggestions for reform in the industry, from year to year. The *Annual* has also been found to be of great use by the various Departments of the Government, Central as well as Provincial.

We will consider ourselves amply rewarded if this publication succeeds in focussing the attention of all interested in the industry, viz., the Government, the manufacturers, the cultivators, the consumers and the general public, to the various important problems before the industry and the remedies therefor, in the post-war period. The present opportunity for consolidating and rationalising the industry should not be lost. The importance of the industry in the national economy need hardly be stressed if it is remembered that it has stopped the drain of about Rs. 16 crores per annum, with the cessation of sugar imports, is supporting no less than 20 million agriculturists whose interests are indissolubly linked up with the future of this industry, has provided a channel for investment to indigenous capital estimated at Rs. 33 crores, and has been responsible for finding employment to no less than 3,000 University men and 1,00,000 labour, skilled and unskilled.

For the sake of ready reference, we have given current important legislative measures pertaining to the industry, and no less than 35 up-to-date statistical tables in an earlier portion of this *Annual*, styled as "The Sugar Industry at a Glance" (i-xxxvi).

Appendix I, gives a complete and up-to-date list of the Sugar Factories in India, showing the location, district, the nearest railway station and the nearest station, the daily cane crushing capacity, and names and addresses, including telegraphic addresses of the Managing Agents or Proprietors.

We take this opportunity of thanking the Director of the Imperial Institute of Sugar Technology, Cawnpore, for the help he has given to us at all times. We are thankful to the Cane Commissioners of U. P. and Bihar and also to the secretaries of the Indian Sugar Syndicate, and the Indian Sugar Mills Association respectively, for the help they have rendered to us in making this publication authoritative and up-to-date.

We would be failing in our duty if we did not acknowledge the very valuable and willing assistance we have always been receiving from Mr. K. R. Malcolm, i.c.s., Chairman, Sugar Commission, U. P. and Bihar, who has furnished us with authoritative material on the industry. It has helped in adding to the value of this *Annual*. We must also acknowledge the unfailing assistance received from the Imperial Council of Agricultural Research, the Directors of Industries, and particularly from Mr. Vishnu Sahay, i.c.s., Sugar Controller for India, who has provided us with much valuable information and statistics.

We have maintained the same style and *format* in this *Annual* as were introduced by Mr. M. P. Gandhi, the Editor of this *Annual*, when the first *Annual* was published in 1935, as it helps the readers and facilitates their looking for information at a particular place. We trust the readers will appreciate this.

We take this opportunity of thanking the various advertisers who have extended assistance to this publication.

Jan Mansion,
Sir Pherozechah Mehta Road,
Fort, Bombay.
30th August, 1945.
Tel. Office : 25961 ; 24047.
Res. : 43926.

M. P. GANDHI,
Editor, *Indian Sugar Industry Annual*.
For Gandhi & Co. (Publishers).

DO PLEASE HAVE A LOOK

AT

- ◆ DO YOU KNOW THAT? (Pages xxxv-xxxvi)
- ◆ STATISTICAL TABLES (Pages i-xx)
- ◆ PREFACE
- ◆ VARIED ADVERTISEMENTS

You will find something of interest, instruction, profit, and amusement!

30-8-1945.

M. P. GANDHI.

THE INDIAN SUGAR INDUSTRY— (1944 ANNUAL)

C O N T E N T S

	PAGE
Preface	i-v
35 <i>Statistical Tables</i> in "The Sugar Industry at a Glance"	1-xxii
" <i>The Sugar Industry at a Glance</i> ," giving text and details regarding Sugar Protection Act, Sugar Control Board, Sugar & Sugar Products Control Order, Sugar Control Order, Indian Central Sugarcane Committee Resolutions passed at the Annual Meeting of the Indian Sugar Mills Association, etc, etc. ...	xxi-xxxv
Do You Know?	xxv-xxvi

The Indian Sugar Industry—1944 Annual—A Review of the Sugar Industry in India during the 1943-44 Season and Comments on the 1944-45 Season:

Introductory	1
Working of the Season 1943-44	1
Third Year of Control and Its Success	2
Industry Reconciled to Controls	2
Room for Improvement in Controls	3
Rationing in Urban Areas and Consumption of Sugar	4
Chief Features of 1943-44 Season	4
World War II Opens A New Chapter for Sugar Industry	5
Industry affected by War, at a late stage	5
Effects of War on Sugar Prices	6
Sugar Industry's Controlled Profits	6
Comparison with Cotton Textile Industry	7
Record Production in 1939-40: Restricted Output in 1940-41 and 1941-42	8
Central Control Over the Industry Assumed in April 1942	8
Operation of Controls during 1943-44	9
Present Aim of Control to Maximise Production	9
Minimum Cane Price at Rs. 0-12-0 per Maund in 1943-44	10
Delayed Payment of 0-2-0 in Defence Savings Stamps	10
Increase in Sugar Price Only 0-13-0 per Maund from 10th November 1943	11
Cane Cess in U. P. and Bihar in 1943-44	12
Sugar (Temporary) Excise Duty, Ordinance	12
Cane Prices in Bihar and U. P. for 1944-45 Season	12
Cane Cess in U. P. and Bihar in 1944-45 Season	13

	PAGE
Increase in Cane Price in Bihar to 0-15-0 per Maund ...	13
Sugar Prices for the Season 1944-45 ...	13
Abolition of the Compulsory Deduction from Cane Price in 1945 ...	13
Forecast of Production of Sugar for the Current 1944-45 Season ...	14
Working of the Mills and Duration of the Crushing Season in 1944-45 ...	14
Moderate Production of Sugar in the Season 1944-45 ...	14
Brighter Prospects for 1945-46 Season ...	15
Conference for Maximisation of Sugar Output ...	16
Details of Working of the Season 1943-44 ...	16
Duration of Cane-crushing and Average Number of Working Days ...	17
Quantities of Cane Crushed by Mills in 1943-44 ...	18
Quantity of Sugar Produced in 1942-43 and 1943-44 Seasons ...	18
Details of Cane Crushed and Sugar Produced in Different Provinces ...	19
Percentage of Recoveries of Sugar from Cane ...	19
Sugar Production Forecast in 1944-45 Season ...	20
Sulphur Supplies and Sugar Production ...	21
Lime and Fuel Supplies to Sugar Mills ...	22
Working of the Sugar Control Order in 1943-44 ...	23
Sugar Prices increased in 1944 ...	24
Comments on Sugar and Sugarcane Prices for 1944-45 ...	24
Temporary Excise Duty Ordinance, 1944 ...	25
Schedule of Sugar Prices for 1944-45 ...	26
Bihar and U. P. Control Acts Extended upto 1947 ...	26
Technical Committee Set Up in U. P. to Help Factories ...	26
Extensions to Sugar Factory Plants in U. P. ...	27
Sugarcane Survey for India Completed in 1945 ...	27
Transport Difficulties in U. P. and Bihar ...	28
Central Sugarcane Committee Formed in June 1944 ...	28
Functions of the Indian Central Sugarcane Committee, 1944 ...	29
Finances of the Central Sugarcane Committee ...	30
Inaugural Meeting of the Central Sugarcane Committee ...	30
Comments on Composition of the Central Sugarcane Committee ...	30
Estimated Production of Sugar in Season 1944-45 ...	31
Area under Sugarcane in 1944-45 ...	32
Second Crop Forecast for 1944-45 for Sugar ...	33
Gur Control Order, 1943 and Its Working in 1943-44 and 1944-45 ...	34
Comments on the Gur Control Order ...	35
Working of the Gur Control Order During 1944-45 ...	36
Production of Sugar by Khandsari and from Gur ...	40
Definition of Khandsari Sugar ...	41
Sugar Refined from Gur ...	42
Sugar Refined from Gur in India for 1944 ...	43
Production of Sugar and Molasses in India by Gur Refineries ...	43
Distribution of Sugar in India ...	44

	PAGE
Importance of Sugar Industry in National Economy ...	44
Consumption of Sugar in India ...	45
Value of Imports of Sugar and Reduced Revenue from Import Duty...	46
India Exports a Small Quantity of Sugar ...	46
Protection to the Industry to Continue till 31st March 1946 ...	46
Sugar Industry Protection and Consumers' Interests ...	47
Protection Decidedly an Advantage to the Country ...	47
Minimum Cane Prices and Production of Sugar in Provinces and States ...	48
Sugar Industry in Madras during 1913-44 ...	48
Sugar Industry in Mysore during 1943-44 ...	48
Sugar Industry in Bombay-Deccan during 1943-44 ...	49
Sugar production in Bengal and Other Areas in 1943-44 ...	51
Sugar Enquiry Committee of Bengal 1942-43 ...	51
Power Alcohol and Molasses Production ...	51
Production of Molasses in India during 1943-44 Season ...	52
U. P. Power Alcohol Act, 1940 (Act VIII of 1940) ...	52
Power Alcohol Act in Bihar Passed in 1942 ...	53
Power Alcohol in Hyderabad State ...	53
Power Alcohol in Bombay and Other Areas ...	53
Government Dilatory in Encouragement of Power Alcohol Production ...	54
Power Alcohol and Rectified Spirit Output in 1944-45 ...	55
Problems of Power Alcohol Plant Erection ...	55
All-India Provision for Fuel Alcohol—Fuel Alcohol Order, 1943 ...	56
Fuel Alcohol Control in U. P. ...	56
Molasses Control in U. P. ...	57
No Central Control Over Molasses and Defects of Present Control ...	57
New Uses for Molasses—Manufacture of Food Yeast ...	58
Use of Molasses in Land Reclamation ...	59
New Uses for By-Products of Sugar Factories ...	59
By-products and Auxiliary Industries—Rayon and Plastics Confectionery and Biscuit Industry ...	60
Sugar and Sugar Products Control Order 1943 ...	60
Sugar (Temporary Excise Duty) Ordinance 1944 ...	60
Protective Duties Continuation Act, 1944 ...	60
War Risks Insurance (Extending) Ordinance, 1944 ...	60
U. P. Sugar Factories Control Rules Amended ...	61
None-Too-enviable Position of Sugar Companies re: Profits ...	61
Increase in Sugar Prices recommended for 1945-46 ...	61
Sugar Industry—A Big National Asset ...	61
Capital and Net Block of Sugar Companies, and Dividends since 1935— ...	62

PART II

Sugarcane—Necessity of Improvement in Cultivation ...	64
Extension of Cane Area or Improvement? ...	64
Diseases in Cane and Pests Must be Eradicated ...	64
Education of Cultivators by Demonstration of Improved Methods ...	65
Improvements in Cane Crop Essential ...	66
Valuable Educational Effect of Cane crop ...	66
Imperial Council's Valuable Work for Sugar Industry ...	67
Improvement in Yield Possible in India ...	67
Rotational Trials ...	67
Ratooning ...	68
Position of the Industry in U. P. and Bihar ...	68
All-India Angle Essential in Development of the Industry ...	68
Cane Development in U. P. in 1943-44 ...	69
Working of Cane Co-operative Societies in U. P. in 1943-44 ...	70
Working of the Central Sugarcane Research at Shahjahanpur in 1943-44 ...	71
Cane Development in Bihar in 1943-44 ...	72
Cane-Growers' Co operative Societies in Bihar ...	72
Paramount need for Research Works Emphasised ...	72
Central Sugarcane Committee to Undertake Research and Development ...	73
Proceedings of the Inaugural Meeting of the Indian Central Sugarcane Committee, held in November 1944 and of the Meeting held in August 1945 ...	73
Improvement in Cultivation most Essential ...	74
Dr. Burns' Targets for Cane Yield ...	74
Work of the Imperial Institute of Sugar Technology ...	75
Cost of Cultivation of Cane and Fair Price of Cane ...	75
Sir Shri Ram's Plan for Lower Cost of Sugar and Cane ...	76
Marketing of Sugar—Report Published in 1943 ...	77
Stability of Agricultural Prices Committee and Central Land Utilisation Board appointed in 1945 ...	77
Factories Definitely Prefer Gate-cane to Rail-borne Cane ...	77
By-Product Industries ...	78
Problem of Marketing Sugar in India ...	78
Consumption in Provinces ...	79
Bureau of Sugar Standards and Qualitative Analysis of Indian Sugar for 1944 ...	79
Indian Sugar Syndicate's Activities in 1944 ...	79
Transport and Co-operation of Railways ...	80
Road Development in Factory Areas and other Facilities ...	80
Expenditure on Research and Investigation Benefits All ...	80
Bihar Labour Enquiry Committee ...	81
Conditions of Labour in Sugar Industry in U. P. and Bihar ...	81

	PAGE
Future of the Industry Bound up with Increasing Yield of Cane ...	82
Subsidiary Industries Need Development	82
India Free to Export Sugar	82
Post-war Reconstruction Programmes for Sugar Industry ...	83
Industrial Panel on Sugar, Power Alcohol & Yeast Constituted in 1945	83
Government of India's Statement on Industrial Policy	83
Long-term and Short-term Planning Policy	84
Some Immediate Problems Facing the Industry	84
Sugar Production in U. K. and Other Countries	85
India the Biggest Producer in the Empire and the World	85
World Production and Consumption of Sugar	86
Rationing in the U. S. A. and Australia	87
International Sugar Agreement Renewed by 14 Countries but not by India	87
I. L. O. Suggest "Super Control"	87
National Role of Sugar Industry in India	87
Post-War Planning in Sugar	88
Provincial Governments Must Assist the Sugar Industry	88
Bengal's Difficulties and Need for Help	88
Assistance to the Industry by Central Government and Legislatures ...	89
Nutritional Survey, 1945	89
Indian Sugar Industry's Remarkable Progress Must be Continued ...	90
List of Sugar Factories in India (Appendix I)	1-30

LABORATORY APPARATUS AND CHEMICALS

AS WELL AS

HOSPITAL REQUISITES

FOR

TEXTILE MILLS AND DYE WORKS

TWADDLE HYDROMETER
WET AND DRY BULB THERMOMETER
CHEMICAL THERMOMETERS
BREWER'S THERMOMETER IN COPPER CASE
ACID PROOF RUBBER GLOVES
FILTER PAPER SHEETS AND PACKETS
DYE POTS AND OTHER PORCELAINWARE
ENAMELWARE—BASINS, BOWLS, MUGS, JUGS
GLASSWARE—BEAKERS, FLASKS, ETC.
A. R. P. AND FIRST AID BOXES
MEDICO-SURGICAL REQUISITES—BALANCES

Supplied by

ZILL & CO.

PRINCESS STREET, BOMBAY 2

'Phone: **25941** [Estd. since 1929] 'Grams: 'Laboratory'

Lists on Request.

STATISTICAL TABLES

IN

“THE SUGAR INDUSTRY AT A GLANCE”

(1944)

(Revised up to 30th June, 1945)

TABLE No. 1

Number of Cane Factories working in India, including States, and Production of Sugar from Cane Factories, Gur Refineries, Khandsari, Net Import of Sugar in British India and Import in Kathiawar Ports during the last 13 years, and estimates for 1944-45 and 1945-46

Year (November- October)	No. of Cane Factories work- ing in India	Cane Factory Production (November- October)	Sugar Refined from Gur (January- December)	Khandsari (Con- jectural estimates) (Nov.-Oct.)	Total Production of Sugar in India (Nov.-Oct.)	Net Imports (Excluding Re- exports) of Sugar in British India (Nov.-Oct.)	Imports of Sugar in Kathiawar Ports (Nov.-Oct.)
		Tons	Tons	Tons	Tons	Tons	Tons
1931-32	32	158,781	69,539	250,000	478,120	438,797	95,678
1932-33	57	290,177	80,106	275,000	645,383	321,081	68,649
1933-34	112	453,965	61,094	200,000	715,059	233,366	87,094
1934-35	130	578,115	39,103	150,000	767,218	197,775	113,364
1935-36	137	932,100	50,067	125,000	1,107,167	86,962	45,218
1936-37	137	1,111,400	19,500	100,000	1,230,900	11,160	12,870
1937-38	136	930,700	16,600	125,000	1,072,300	9,410	12,284
1938-39	139	650,800	14,200	100,000	765,000	254,400	76,819
1939-40	145	1,241,700	31,700	125,000	1,398,400	252,000	85,580
1940-41	148	1,095,400	48,500	125,000	1,268,900	18,778	
1941-42	150	778,100	13,400	150,400	941,900	48,637	
1942-43	150	1,070,700	6,370	117,630	1,294,700	563	
1943-44	151	1,216,400	7,706	80,000	1,304,106	...	
1944-45	144	985,100	7,980	80,000	1,073,080	...	
		(Estimated.) *	(Estimated.)		(Estimated)		
1945-46	150	1,200,000	...	...	...	...	...
		(Our Est.)					

* Vide Indian Trade Journal, p. 289, dated March 15, 1945.

TABLE No. 2

Comparative growth of the Sugar Industry in the various Provinces
since 1931-32, the pre-protection year

(No. of Cane-factories Working)

Province	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45
United Provinces	...	14	33	59	65	67	68	68	69	70	70	71	70	68
Bihar	...	12	19	33	34	35	33	33	32	32	32	31	31	29
Punjab, Sind & N.-W. F. P.	...	1	1	5	6	4	5	3	3	3	4	4	2	2
Madras	...	2	2	4	8	8	11	8	7	10	11	10	12	12
Bombay	...	2	1	4	5	6	6	7	7	8	10	9	10	10
Bengal	2	5	6	6	6	8	9	9	8	6	4
Orissa	2	2	2	2	2	2	1
Indian States	4	5	9	8	9	11	11	12	13	15	18
Total for India	...	32	57	112	130	137	136	139	145	148	150	150	151	144
Burma*	...	1	1	1	2	2	3	2	2	3	3	(a)	(a)	(a)

* Burma excluded from 1936-37 onwards from the total for India.

(a) No information available after occupation of Burma by Japan.

THE SUGAR INDUSTRY AT A GLANCE, 1944

TABLE No. 3

Number of Sugar Factories in various Provinces, working in 1943-44,
Estimated quantity of cane crushed, sugar produced and Recovery
percentage obtained, etc.

(Official Estimates of the Director, Imperial Institute of Sugar Technology,
Channarayana, published in the Indian Trade Journal, dated 5th
October 1944, and 15th March 1945.)

Province	No. of Mills Working	Cane Crushed Tons	Sugar Tons	Sugar-cane Recovery per cent 1943-44
United Provinces ...	70	7,332,400	727,100	9.92
Bihar ...	31	2,018,400	212,400	10.53
Punjab, Sind & N.-W. F. P. ...	2	174,200	17,400	9.99
Madras ...	12	420,400	39,200	9.32
Bombay ...	10	739,700	81,200	10.98
Bengal ...	6	175,900	13,600	7.73
Orissa ...	2	17,600	1,700	9.66
Indian States ...	18	1,259,200	123,800	9.83
Total ...	151	12,137,800	1,216,400	10.02

TABLE No. 4

Total, and per capita consumption of Sugar and Gur in India*

Year (November-October)	Consumption of Sugar in tons	Official Estimate	Consumption of Gur in tons	Per Capita Consumption lbs.		
				Sugar	Gur	Total of Sugar and Gur
				lbs. per head	lbs. per head	lbs. per head
1931-32	982,000	"	2,758,000	6.2	17.2	23.4
1932-33	1,006,000	"	3,240,000	6.3	20.2	26.5
1933-34	996,000	"	3,486,000	6.1	21.5	27.6
1934-35	1,059,000	"	3,701,000	6.5	22.6	29.1
1935-36	1,074,000	"	4,101,000	6.5	24.8	31.3
1936-37	1,167,000	"	4,268,000	7.3	26.7	34.0
1937-38	1,159,000	"	3,364,000	7.2	20.9	28.1
1938-39	1,073,000	"	2,131,000	6.6	13.1	19.7
1939-40	1,019,100	"	2,441,000	6.4	18.0	24.4
1940-41	1,100,000	(Our Est.)	3,410,000	6.7	20.6	27.3
1941-42	1,050,000	"	2,829,000	6.0	18.5	24.5
1942-43	966,000	"	3,567,000	5.9	20.1	26.0
1943-44	1,086,300	"	3,989,500	6.5	23.8	30.3

Total value of sugar, including gur, produced in the year 1943-44 may be estimated at about Rs. 118.33 crores.

Price calculated at the rate of Rs. 15-4-0 per maund of sugar and Rs. 9-6-0 per maund of gur as the standard of average for the whole season.

Maund 82.2/7 lbs.

Sugar 15½

Gur 9.1/6

	Tons	Rs. Price
1943-44 { Sugar	10,86,300	49,09,65,375
{ Gur	39,89,500	69,23,44,479

Total Value Rs. 1,18,33,09,854

Rs. 118.33 Crores.

* Our estimates.

TABLE No. 5

Per capita consumption of Sugar in various countries

United Kingdom ...	106	lbs.	per head	Cuba ...	88	lbs.	per head
U. S. A. ...	97	"	"	Java ...	11	"	"
Brazil ...	34	"	"	Japan ...	33	"	"
	52	"	"	Union of South Africa	47	"	"

TABLE No. 6

Yearly world production, consumption and the carry-over of stocks of Sugar for the last 10 years in thousand tons (Raw Sugar Value)*

(In Thousands of Long Tons)

Crop year (Sept. 1st to Aug. 31st)	Opening Stocks (Sept. 1st)	Production	Consumption	Closing Stocks (Aug. 31st)	Percentage relation of stocks to Consumption
1931-32	12,362	26,431	26,724	12,069	45.2
1932-33	12,069	24,692	26,193	10,568	40.3
1933-34	10,568	25,709	26,287	9,990	38.0
1934-35	9,990	26,191	27,188	8,993	33.1
1935-36	8,993	28,846	29,231	8,608	29.5
1936-37	8,608	30,818	30,549	8,877	29.1
1937-38	8,877	30,967	29,647	10,197	34.4
1938-39	10,197	29,478	29,406	10,269	34.9
1939-40	10,269	30,753	26,551	11,471	38.8
1940-41	...	30,498	...	...	...
1941-42	...	19,211	...	...	...
1942-43	...	17,908	...	...	...

* Figures are in long tons (Long ton = 2,240 lbs.), (Metric ton = 2,205 lbs.), and (Short ton = 2,000 lbs.).

A glance at the last Table in the 1940 Indian Sugar Industry Annual will show that India leads as the largest sugar producing country in the world, since 1931.

TABLE No. 7

Average and maximum percentage of recovery of Sugar in factories in India and Java since 1931-32*

Year	India Average	U. P. Average	Bihar Average	Bombay Average	Java Average	India Maximum
1931-32	8.89	8.59	9.06	...	10.92	10
1932-33	8.66	8.55	8.60	10.00	11.56	10
1933-34	8.80	9.08	8.32	10.00	12.84	10
1934-35	8.66	8.56	8.79	10.37	12.55	11.10
1935-36	9.29	9.60	8.93	10.47	13.23	11.34
1936-37	9.50	9.65	9.20	10.68	12.77	11.43
1937-38	9.38	9.18	9.58	10.97	11.87	11.63
1938-39	9.29	9.14	9.00	11.29	11.77	12.25
1939-40	9.45	9.37	9.29	10.97	12.23	12.31
1940-41	9.70	9.87	9.86	9.94	...	11.15
1941-42	9.69	9.87	10.35	9.87	...	12.45
1942-43	10.28	10.16	10.93	10.64	...	13.35
1943-44	10.02	9.92	10.53	10.98	...	12.84

* Vide Indian Trade Journal, Calcutta, 5th October 1944.

TABLE No. 8

Capacity of factories and duration of crushing season in India*

	Tons	
Average Cane-crushing capacity of Factory (calculated on the basis of tons of cane crushed per day of actual working) in India	{ 517	1934-35
	{ 568	1935-36
	{ 630	1936-37
	{ 660	1937-38
	{ 630	1938-39
	{ 710	1939-40
	{ 690	1940-41
	{ 640	1941-42
	{ 690	1942-43
	{ 708	1943-44
Maximum Cane-crushing capacity of Facto- ries per day in India	{ 2,012	1934-35
	{ 1,807	1935-36
	{ 1,960	1936-37
	{ 2,000	1937-38
	{ 1,850	1938-39
	{ 1,960	1939-40
	{ 1,980	1940-41
	{ 1,800	1941-42
	{ 1,920	1942-43
	{ 1,903	1943-44

Duration of Cane-crushing Season (October-May)	1933-34 No. of days	1934-35 No. of days	1935-36 No. of days	1936-37 No. of days	1937-38 No. of days	1938-39 No. of days	1939-40 No. of days	1940-41 No. of days	1941-42 No. of days	1942-43 No. of days	1943-44 No. of days
Mean duration of Cane-crushing season in All-India ...	106	104	126	138	112	83	129	113	85	101	117
Maximum duration of Cane-crushing season in All-India ...	208	172	179	203	181	184	203	264	313	278	255
Mean duration of Cane-crushing season in U. P. ...	112	107	134	140	124	77	133	100	78	112	131
Mean duration of Cane-crushing season in Bihar ...	105	109	4	150	99	79	136	100	54	96	93
Mean duration of Cane-crushing season in "All other Pro- vinces" ...	84	90	112	138	103	97	119	144	117	89	110

*Vide Indian Trade Journal, Calcutta, dated 5th October 1944 and previous issues.

TABLE No. 9

Acreege under Sugar-cane, under improved varieties, production of cane per acre, gross production of Gur, and calculated production of Cane-crop* from 1931-32 to 1944-45

Year	Total acreege under sugar-cane in thousand acres	Acreege under improved varieties in thousand acres	Average cane production per acre (in tons)	Gross production expressed as gur (in thousand tons)	Calculated production of sugar-cane (10-11 factors) (in thousand tons)
1930-31 ...	2,905	817	12.3	3,359	35,780
1931-32 ...	3,076	1,170	14.1	4,116	43,316
1932-33 ...	3,425	1,845	14.9	4,859	51,129
1933-34 ...	3,422	2,295	15.3	5,055	52,455
1934-35 ...	3,602	2,433	15.1	5,292	54,346
1935-36 ...	4,154	3,056	15.3	6,102	61,202
1936-37 ...	4,582	3,452	15.6	6,932	67,322
1937-38 ...	3,869	2,968	15.5	5,579	55,637
1938-39 ...	3,130	2,673	15.0	3,572	35,851
1939-40 ...	3,640	2,893	15.0	4,748	47,632
1940-41 ...	4,598	3,480	15.0	5,794	59,090
1941-42 ...	3,515	.....	15.0	4,371	46,030
1942-43 ...	3,600	.....	15.0	5,076	.....
1943-44 ...	4,234	.....	.....	5,848	.....
1944-45 ...	4,134†	.....	.....	5,422 (Estimated)	.....

* *Vide Indian Trade Journal.* The yield of gur per acre has increased from .80 tons in 1901-02 to 1.47 tons per acre, due to improved varieties of cane.

† *Vide Indian Trade Journal,* p 116, 26th April, 1915.

TABLE No. 10

Percentage of Cane used under different heads during the years 1932-33 to 1943-44 (November-October)**

	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38 (Our Est.)	1938-39 (Our Est.)	1939-40 (Our Est.)	1940-41 (Our Est.)	1941-42 (Our Est.)	1942-43 (Our Est.)	1943-44 (Our Est.)
Cane used in Factories ...	6.5	9.8	12.3	16.0	17.6	17.8	16.2	27.7	19.1	21.2	25.0	25.0
Cane equivalent to gur used in refineries ...	3.0	2.0	1.2	1.4	0.5	0.5	0.5	0.9	1.4	1.4	1.0	1.0
Cane used for gur manufacture ...	64.7	65.5	66.0	63.8	64.9	62.0	64.0	51.4	57.7	53.4	50.0	50.0
Cane used for other purposes, including <i>Khandsari</i> , Chewing, setts for planting etc. ...	25.8	22.7	20.5	18.8	16.9	19.7	19.3	20.0	21.8	24.0	24.0	24.0
Total percentage ...	100	100	100	100	100	100	100	100	100	100	100	100

** *Vide Reply in the Council of State to Question No. 39, dated 11th November 1941.*

THE SUGAR INDUSTRY AT A GLANCE, 1944

TABLE No. 11

Percentage of Cane crushed in factories to the total Cane-crop in various Provinces*

Season	U. P.*	Bihar*	Bombay	Bengal	Madras	India
1934-35 ...	13.6	30.9	8.0	2.7	5.0	12.3
1935-36 ...	17.1	40.4	11.7	4.8	5.4	16.0
1936-37 ...	17.1	49.3	13.0	5.2	6.0	17.6
1937-38 (Our Est.) ...	18.6	62.3	14.0	.....	.....	17.8
1938-39 ...	14.5	44.5	.....	.....	.....	19.5
1939-40 ...	25.5	48.4	.....	.....	.....	27.7
1940-41 ...	13.9	29.3	.....	.....	.....	19.1
1941-42 ...	14.6	.....	.....	.....	.....	21.2
1942-43 ...	21.9	.....	.....	.....	.....	25.0
1943-44 ...	22.3	.....	.....	.....	.....	25.0

* Figures based on Cane Development Department (U.P.) statement showing disposal of cane crop in the U.P. during 1934 to 1942 and on letters from Cane Commissioner, Bihar to Chairman, Sugar Commission, U.P. and Bihar.

TABLE No. 12

Cost of production of Cane per maund

- (a) Definite figures are not available. Cost of production varies from Province to Province from annas 0-3-0 to annas 0-7-0 per maund. (*Vide* 1939 Annual.)
- (b) Enquiry undertaken by the Imperial Council of Agricultural Research in 1934, is concluded. Reports of cost in various Provinces were published in 1938 and 1939, and also referred to in Tariff Board's Report of 1937.
- (c) Cost considerably increased since 1942, due to inflation, and soaring up of prices.

TABLE No. 13

Estimate of total amount of money paid by Sugar factories to Cane-cultivators and workers, since 1931-32 to 1943-44

Season	Estimated average price per maund of cane in U. P. & Bihar	Estimated amount paid for cane by factories to Cultivators (1)	No. of unskilled workers employed (2)	Estimated amount of money paid to unskilled workers (3)
	Rs. a. p.	Rs.	No.	Rs.
1931-32 ...	0 5 10	1,77,51,000	16,640	998,000
1932-33 ...	0 5 6	3,14,39,000	29,640	1,778,000
1933-34 ...	0 5 6	4,83,98,000	67,200	4,032,000
1934-35 ...	0 5 3	5,97,66,000	78,200	4,680,000
1935-36 ...	0 5 3	8,81,03,000	82,200	4,932,000
1936-37 ...	0 4 5	8,92,19,504	100,000	6,000,000
1937-38 ...	0 5 1	8,57,53,775	100,000	6,000,000
1938-39 ...	0 6 10	8,13,00,988	100,000	6,000,000
1939-40 ...	0 8 5	18,81,09,460	100,000	7,000,000
1940-41 ...	0 4 8	8,96,40,583	100,000	5,650,000
1941-42 ...	0 7 0	6,15,00,000	100,000	4,000,000
1942-43 ...	0 10 0	13,00,00,000	100,000	5,000,000
1943-44 ...	0 12 0	18,00,00,000	100,000	5,500,000
1944-45 ...	0 14 0	26,40,00,000	90,000	6,200,000

- (1) Based on statistics received from a large number of factories in U.P. and Bihar.
- (2) Based on an assumption of an average factory employing about 600 workers.
- (3) Based on an estimate of payment of 0-8-0 per day, (upto 1941-42) and on the average working period of the season. After 1941-42, the estimate is on a 25 per cent higher basis.
- (4) Dearness and allowances were increased by 50 per cent in 1942-43 and 1943-44.

TABLE No. 14

Import Duties on Sugar in India and Principal Countries in the World

As there have been so many changes due to the war in regard to the duties on sugar in the various countries, we are not giving the full table here. A reference may be made to the 1939 Annual for the import duties on sugar then existing.

The following table gives the duties in India :—

Import Duty on Sugar in India (1944)

Total Import Duty including 20 per cent surcharge (with equivalent excise duty)	Rs. 11-1-7 1/5 per cwt.
equivalent to	Rs. 7-1-9 6/7 per maund.
Excise Duty on factory sugar in British India	Rs. 3-0-0 per cwt.
equivalent to	Rs. 2-3-3 per maund.

The present import duty will continue till 31st March 1946

TABLE No. 15

Excise Duty and Import Duty on Sugar, Sugar Candy* and Molasses in India

On Sugar per cwt.	Protective Import Duty per cwt.	Additional Revenue Duty	Total Import Duty per cwt. Rs.
From 1st April, 1932 to 31st March, 1934	Rs. 7-4-0	Revenue surcharge @ 25% of protective duty Rs. 1-13-0	9-1-0
From 1st April, 1934 to 27th February, 1937	7-12-0 (0-8-0 being additional margin)	Equivalent excise duty Rs. 1-5-0	9-1-0
(Rs. 1-5-0 Excise Duty on domestic production of factory sugar) From 28th February, 1937	7-4-0	Equivalent excise duty Rs. 2-0-0	9-4-0
(Rs. 2-0-0 Excise Duty on domestic production of factory sugar) From 1st April, 1939	6-12-0	Equivalent excise duty Rs. 2-0-0	8-12-0
(Rs. 2-0-0 Excise Duty on domestic production of factory sugar) From 1st March, 1940	6-12-0	Equivalent excise duty Rs. 3-0-0	9-12-0†
(Rs. 3-0-0 Excise Duty on domestic production of factory sugar) From 1st April, 1942	6-12-0	Revenue surcharge of 20% amounting to Rs. 1-5-7 1/5 and Equivalent excise duty Rs. 3-0-0	11-1-7 1/5‡
(Rs. 3-0-0 Excise Duty on domestic production of factory sugar)			

* From 20th February 1934, a revenue duty of Rs. 10-8-0 per cwt. was imposed on sugar candy in place of Rs. 9-1-0 per cwt. The rate of import duty on molasses is 31½ per cent *ad valorem* since April 1932.

† The import duty of Rs. 11-1-7½ per cwt. works out at Rs. 7-1-9 per md. and Rs. 3-0-0 excise duty per cwt. works out at Rs. 2-3-3 per md.

‡ This import duty has been continued till 31st March 1946.

‡ Total import duty includes surcharge of 20 per cent as from 1st April 1942.

TABLE No. 16

Yield of Revenue from Import Duty on Sugar in India from 1931-32 to 1944-45
(Burma excluded from 1937-38)

Year (April-March)	Yield of Revenue Rs.	Year (April-March)	Yield of Revenue Rs.
1931-32	7,97,63,000	1938-39	45,22,000
1932-33 '	6,84,79,000	1939-40	3,96,08,000
1933-34	4,72,04,000	1940-41	18,24,000
1934-35	3,81,35,040	1941-42	1,94,000
1935-36	3,24,16,000	1942-43	56,000
1936-37	50,52,000	1943-44	4,14,000
1937-38	25,33,000	1944-45	3,56,000

TABLE No. 17

Excise Duty on all Sugar produced in British India and Yield of Revenue
therefrom from 1935-36 to 1945-46 Fiscal years (April-March)

Amount of duty per cwt.	Yield of Revenue from Excise Duty (in Thousand Rupees)										
	1935- 36	1936- 37	1937- 38	1938- 39	1939- 40	1940- 41	1941- 42	1942- 43	1943- 44	1944- 45	1945- 46
Khandsari :	Rs. 60	Rs. 47	Rs. 51	Rs. 59	Rs. 146	Rs. 286	Rs. 443	Rs. 157	Rs. 327	Rs.	Rs.
Factory :	15,824	25,202	33,097	42,244	24,760	39,011	66,827	48,184	67,900	65,000 (Revised estimate)	62,500 (Est.)
Total	15,884	25,249	33,148	42,303	24,906	39,297	67,270	48,341	68,227	65,000	62,500

TABLE No. 18

Average price of Indian and Imported Sugar in India per maund of 82-2/7 lbs.

Indian 1st quality Special (Cawnpore market average quotation) (Factory Delivery Basis) Imported Sugar (Calcutta market average quotation)	1934 Rs.	1935 Rs.	1936 Rs.	1937 Rs.	1938 Rs.	1939 Rs.	1940 Rs.	1941 Rs.	1942 Rs.	1943 Rs.	1944 Rs.
	9-6-0	9-0-0	8-4-0	7-0-0	8-8-0	10-12-0	10-8-0	11-0-0	13-0-0	15-0-0	16-4-0
	9-13-0	9-13-0	9-12-0	9-10-0	10-8-0	11-0-0	11-0-0	...	...	...	for D24

TABLE No. 19

Average price of Gur per maund in 1940-41, 1941-42, 1942-43 and 1943-44

Gur Market	1940-41 (Nov. to Oct.) Rs. a. p.	1941-42 (Nov. to Sept.) Rs. a. p.	1942-43 Nov.-Oct. Rs. a. p.	1943-44 Nov.-Oct. Rs. a. p.
Madras ...	3 1 6	4 2 6	9 6 10	9 10 0
Ahmednagar ...	3 6 9	6 5 8	14 14 6	15 9 9
Lyallpur ...	2 9 2	4 0 6	10 7 7	10 4 5
	(No quotation) May, '41	(No quotation) Feb., June, July, August, Sept. '42		
Muzaffarnagar ...	3 0 7	5 13 9	8 15 6	6 12 11
Meerut ...	2 12 11	5 12 10	9 0 1	7 6 0
	(No quotation) August, '41	(No quotation) for March and Sept. '42		
Bhagalpur ...	3 0 1	5 10 3	11 4 4	8 5 6
	(No quotation) for Mar., '41	(No quotation) for May, June, July and Sept. '42		
Dacca ...	5 5 4	9 7 7	.....	.....

TABLE No. 20

Approximate Official Estimate of total Carry-over of Stocks of Sugar in India at the beginning of November, since 1931

Year							Tons
1931	...	...	...	...	...	...	32,000
1932	...	...	...	...	...	...	19,000
1933	...	...	...	...	...	...	9,000
1934	...	...	...	...	...	...	30,000
1935	...	...	...	...	...	...	23,000
1936	...	...	...	...	...	...	159,000
1937	...	...	...	...	...	...	211,000
1938	...	...	...	...	...	...	102,000
1939	...	...	...	...	...	...	105,000
1940	...	...	...	...	...	...	390,000
1941	...	...	...	...	...	...	295,000
1942	...	...	...	...	...	...	105,000
1943	...	...	...	...	...	...	133,863
1944	...	...	...	...	...	...	265,802

TABLE No. 21

Approximate Railway Freight on Sugar-cane in 1943-44

Railway	Kind of Wagon	Average Capacity	Distance	Rate per Wagon
A. B. Railway ...	4 wheeler	160 maunds	35 miles	Rs. A. P. 8 14 0
E. B. Railway ...	4 wheeler	160 maunds	177 miles	27 0 0
E. B. & A. B. Rly. combined ..	4 wheeler	160 maunds	54 miles	17 8 0
O. & T. Railway ...	4 wheeler	270 maunds	55-60 miles	9 0 0
E. I. Railway ...	4 wheeler	480 maunds	39 miles	10 0 0
			up to 50 miles	14 0 0
			up to 100 miles	25 0 0

THE SUGAR INDUSTRY AT A GLANCE, 1944

TABLE No. 22

Statement showing Expenditure on Sugar Research by the Imperial Council of Agricultural Research*

Year	Amount spent or proposed to be spent	Directions in which generally Spent
	Rs.	
1935-36	4,79,088	} Production and testing of new varieties of sugar-cane.
1936-37	3,88,627	
1937-38	3,46,820	} Devising and testing systems of cultivation and manuring.
1938-39	3,24,928	
1939-40	3,56,790	} Study and combating of insect and fungus pests.
1940-41	3,19,304	
1941-42	3,74,580	} Research in use of molasses as manure and cattle food.
1942-43	3,57,446	
1943-44	4,26,828	} Sugar Marketing Survey.
1944-45	4,11,700	
	(Estimated to be spent.)	Utilisation of Bagasse for the paper, and board industry, Etc., Etc.

* Figures collected from official sources and furnished by Secretary, Imperial Council of Agricultural Research, (Vide letter No. F. 66(14)/43D dated 16th January 1945).

TABLE No. 23

Estimated Percentage of Gate-cane to the Total Quantity of Cane (i.e. Gate-cane and Rail-borne cane) crushed in Factories in the various Provinces*

Province	1934-35 %	1935-36 %	1936-37 %	1937-38 %	1938-39 %	1939-40† %	1940-41 %	1941-42 %	1942-43 %	1943-44 %
Bihar	48	50	58	53	53	53	65	63	70	70
United Provinces	65	66	68	72	66	62	69	80	85	85
Bengal	22	26	45	55	54	33	32	52	60	60
Punjab	...	51	61	69	57	47	55	80	80	80
Bombay	100	100	100	100	100	99	100	100	100	100
Madras	...	35	67	71	72	75	67	60	65	65

Compiled by the Indian Sugar Syndicate Ltd. in September 1939.

† Compiled by us from the returns made by factories in 1939-40, 1940-41, 1941-42, 1942-43 and 1943-44.

TABLE No. 24

This Table shows the production, consumption and *per capita* consumption of sugar in the different Provinces and Indian States in 1939-40, 1940-41 and 1941-42 (1st November to 31st October). In estimating these figures also, no account has been taken of the differences between opening and closing invisible stocks and imports and exports by road. But it is believed that initial and closing invisible stocks do not differ appreciably and that the volume of inter-provincial traffic in sugar by road is not great. A better estimate of consumption will, however, be possible if statistics of markets stocks improve.

Production, Consumption and *Per Capita* Consumption of Sugar in the various Provinces and States, during the years 1939-40, 1940-41, and 1941-42 (Nov.-Oct.)

Name of Province	1939-40			1940-41			1941-42		
	Production	Consumption	<i>Per capita</i> Consumption	Production	Consumption	<i>Per capita</i> Consumption	Production	Consumption	<i>Per capita</i> Consumption
	Tons	Tons in (1000)	Lbs.	Tons	Tons in (1000)	Lbs.	Tons	Tons in (1000)	Lbs.
Bengal ...	45,800	161	6.7	64,600	178	6.6	29,400	120	4.5
Bombay ...	97,200	219	15.2	120,132	260	20.8	113,354	240	19.2
Madras ...	50,400	91	3.6	67,400	106	4.8	47,448	90	4.1
Bihar ...	328,800	57	(a)3.1	257,100	69	(a)3.9	122,300	66	(a)3.6
United Provinces ...	783,400	153	6.3	708,592	244	9.8	480,663	159	6.4
Punjab ...	32,100	169	12.0	51,023	231	15.3	38,120	199	13.1
C. P. and Berar...		38	4.3		47	6.3		37	4.9
Assam ...		16	3.5		20	4.4		11	2.4
Sind and British Baluchistan.		35	14.3		44	19.5		39	17.3
Orissa ...		8	...		10	...		7	...
N.-W. F. P. ...		8	3.8		18	13.3		15	11.1
Delhi ...		20	44.8		22	53.7		14	34.2
Rajputana ...		38	6.8		48	7.9		60	9.8
Central India ...		25	4.8		35	6.8		33	6.4
Nizam's Territory ...		20	2.8		27	3.7		23	3.2
Kashmir ...		2	1.1		3	1.7		4	2.3
Mysore ...		11	3.5		14	4.3		15	4.6
ALL-INDIA ...		1,074	6.5		1,376	8.5		1,132	7.0

(a) Includes Orissa also.

TABLE No. 25

Total Production, Import and Export of Molasses in India* for the last 13 years

Year	Production of Molasses in India in Thousand Tons				Imports of Molasses into British India (Tons)	Export of Molasses from British India (including Palmyra and cane jaggery) (Tons)
	From Cane Factory	From Gur Refineries	From Khand-sari †	Total†		
Nov.-Oct.					Apr.-Mar.	Apr.-Mar.
1931-32 ...	69	46	250	365	40,191	740
1932-33 ...	130	56	275	461	31,991	819
1933-34 ...	190	40	209	430	2,401	1,201
1934-35 ...	234	22	150	406	415	1,153
1935-36 ...	337	33	125	495	Nil	1,026
1936-37 ...	406	10	100	516	Nil	24,195
1937-38 ...	349	8	125	482	5	79,187
1938-39 ...	242	6	100	348	2,160	52,676
1939-40 ...	485	7	125	627	2,000	16,000
1940-41 ...	424	32	100	556	.....	.....
1941-42 ...	293	7	100	400	.....	.....
1942-43 ...	369	11	100	480	.....	.....
1943-44 ...	438	8	100	540	.....	.....
1944-45 ...	341	.....	.....	.....	.....	.....

* After 1936-37, statistics regarding Burma are excluded.

† Official estimates.

THE SUGAR INDUSTRY AT A GLANCE, 1944

TABLE No. 26

Total value of Sugar Machinery imported in British India from 1932-33 to 1939-40*

(In Thousands of Rupees)

Source	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38	1938-39	1939-40
	Rs.	Rs.	Rs	Rs	Rs.	Rs.	Rs.	Rs.
U. K. ...	91,48	1,95,87	73,60	49,70	68,49	43,15	30,16	.. ...
Other Countries ...	61,63	1,40,51	31,84	16,00	26,66	26,21	31,20	.....
	1,53,11	3,36,38	1,05,45	65,70	95,16	69,37	61,36	50,84

* Statistics discontinued after 1939-40.

TABLE No. 27

Calculated Net Production* of Gur in India for direct consumption, from 1937-38 to 1942-43

Year (November—October)	Calculated net Annual Production of Gur for direct consumption (in Tons)
1930-31	2,241,000
1931-32	2,758,000
1932-33	3,240,000
1933-34	3,486,000
1934-35	3,701,000
1935-36	4,101,000
1936-37	4,268,000
1937-38	4,364,000
1938-39	2,131,000
1939-40	2,441,000
1940-41	3,414,000
1941-42	2,829,000
1942-43	3,015,000 (Revised)
1943-44	3,564,000 (Estimated)

* The net production of *gur* is calculated by deducting from the total yield of cane expressed in terms of *gur*, and published in the "Final General Memorandum on the production of the Principal Crops in India", by the Director-General, Commercial Intelligence and Statistics, the *gur* equivalent of the cane used for purposes other than *gur* manufacture. Vide letter No. 8002/stat, dated 2nd February 1944, from the Director, Imperial Institute of Sugar Technology, Cawnpore, to the Chairman, Sugar Commission, U.P. and Bihar, Cawnpore, for figures from 1940-41 to 1942-43.

TABLE No. 28

Cane Factory Production of Sugar in U.P., Bihar and All-India
(in Tons) from 1931-32 to 1943-44

(Vide Indian Trade Journal, 6th April 1944)

Season	U. P.	Bihar	All-India	Total quantity of cane crushed all factories in tons
1931-32 ...	66,312	75,091	1,58,581	17,83,000
1932-33 ...	1,40,344	1,28,610	2,90,177	33,50,000
1933-34 ...	2,73,774	1,39,957	4,53,965	51,57,000
1934-35 ...	3,15,600	1,84,038	5,78,115	66,72,000
1935-36 ...	5,30,000	2,50,200	9,32,100	98,01,000
1936-37 ...	6,08,600	3,29,300	11,11,400	1,10,87,000
1937-38 ...	5,31,300	2,25,300	9,30,700	99,16,400
1938-39 ...	3,20,300	61,600	6,50,800	70,04,800
1939-40 ...	6,59,500	3,22,100	12,41,700	1,31,31,700
1940-41 ...	5,13,300	2,46,100	10,95,400	1,12,90,900
1941-42 ...	3,82,900	1,17,300	7,78,100	80,26,300
1942-43 ...	6,12,500	2,37,400	10,70,700	1,04,18,500
1943-44 ...	7,27,100	2,12,400	12,16,400	1,21,37,800 (Revised)
1944-45 ...	5,33,500	1,70,600	9,85,100	95,33,400

TABLE No. 29

The following is the schedule of ex-factory control rates of sugar which have come into force with effect from October 21, 1944 :

Price per maund of Crystal Sugar for sale, ex-factory 1944-45 according to grade

	19	20	21	22	23	24	25	26	27	28
AAA	16 12 6	16 14 0	17 0 0	17 1 6	17 3 6	17 5 0
AA	16 10 6	16 12 0	16 14 0	16 15 6	17 1 6	17 3 0
A	...	16 2 0	16 4 6	16 6 6	16 8 6	16 10 0	16 12 0	16 13 6	16 15 6	17 1 0
B	...	15 15 6	16 2 0	16 4 0	16 6 0	16 7 6	16 9 6	16 11 0	16 13 0	16 14 6
C	...	15 13 6	16 0 0	16 2 0	16 4 0	16 5 6	16 7 6	16 9 0	16 11 0	16 12 6
D	...	15 12 0	15 14 6	16 0 6	16 2 6	16 4 0	16 5 6	16 7 6	16 9 6	16 11 0
E	...	15 6 6	15 10 6	15 13 0	15 15 0	16 1 0	16 2 6	16 4 6	16 6 0	16 9 6
F	...	15 5 6	15 9 6	15 12 0	15 14 0	16 0 0	16 1 6	16 3 6	16 5 0	16 8 6
G	...	15 4 6	15 8 6	15 11 0	15 13 0	15 15 0	16 0 6	16 2 6	16 4 0	16 7 6

Type of Sugar

Maximum Ex-factory Price*

Per maund

Sugar Candy

Bura

Khandisari

Rs. 20-7-0

" 17-11-0

" 16-4-0

(Wholesale prices in 21 Districts)

* Vide two notifications of the Sugar Controller dated 21st October 1944.

THE SUGAR INDUSTRY AT A GLANCE, 1944

TABLE No. 30

Recovery of Sugar from Cane during 1932-35 to 1944-45

Provinces	Recovery of Sugar per cent Cane										
	1934-35	1935-36	1936-37	1937-38	1938-39	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45
U. P. ...	8.56	9.60	9.65	9.18	9.14	9.37	9.87	9.87	10.16	9.92	10.36
Bihar ...	8.79	8.93	9.20	9.58	9.00	9.29	9.86	10.35	10.93	10.53	10.70
"All other Provinces" ..	8.77	9.00	9.60	9.77	9.91	9.88	9.34	9.22	9.95	9.91	..
All-India ...	8.66	9.29	9.50	9.38	9.29	9.45	9.70	9.69	10.28	10.02	10.31

* *Vide Trade Journal.* (Second Memorandum on production of cane sugar, in 1944-45)

TABLE No. 31

Production of Sugar directly from Cane in Modern Factories in India, 1929-30 to 1943-44, and Recovery Percentage for Java

Season	Number of Factories producing Sugar direct from cane	Cane crushed	Sugar produced	Percentage Recovery for India	Percentage Recovery for Java ¹
		Tons	Tons		
1929-30	27	989,776	49,768	9.07	11.76
1930-31	29	1,317,248	119,859	9.00	10.92
1931-32	32	1,783,499	158,581	8.89	11.56
1932-33	57	3,350,231	290,177	8.66	12.84
1933-34	112	5,157,373	453,965	8.80	12.55
1934-35	130	6,572,000	578,115	8.66	13.23
1935-36	137	9,801,748	932,100	9.29	12.77
1936-37	137	11,687,200	1,111,400	9.50	11.87
1937-38	136	9,916,400	930,700	9.38	11.77
1938-39	139	7,001,800	650,800	9.29	12.23
1939-40	145	13,131,700	1,241,700	9.45	
1940-41	148	11,290,900	1,095,400	9.70	
1941-42	150	8,026,300	778,100	9.69	
1942-43 (Our Est.)	150	10,418,000	1,070,700	10.28	
1943-44 (Revised)	151	12,137,800	1,216,400	10.02	
1944-45	144	9,533,400	985,100	10.31	

* *Vide the Indian Trade Journal*, 23rd September 1943.

THE SUGAR INDUSTRY AT A GLANCE, 1944

2

TABLE No. 32

Value of imports of Sugar,¹ Revenue from imports, and Rate of Import Duty on Sugar from 1920-21 to 1944-45

Year April-March	Value of foreign Sugar (net) imported in British India in Lakhs of Rupees*	Revenue from Import Duty on Sugar in Lakhs of Rupees**	Rate of Import Duty
1920-21	1,850	185	10 p.c. <i>ad valorem</i>
1921-22	2,750	412	15 p.c. <i>ad valorem</i>
1922-23	1,519	487	25 p.c. <i>ad valorem</i>
1923-24	1,515	486	" "
1924-25	2,090	576	" "
1925-26	1,520	659	Rs. 4-8-0 per cwt.
1926-27	1,534	744	" "
1927-28	1,450	653	" "
1928-29	1,546	762	" "
1929-30	1,836	816	" "
1930-31	1,047	1,061	Rs. 6-0-0 per cwt.
1931-32	590	798	Rs. 9-1-0 "
			(Rs. 7-4-0 being protective and Rs. 1-13-0 being revenue sur- charge from 1st April 1932)
1932-33	422	685	" "
1933-34	270	472	" "
1934-35	210	381	Rs. 9-1-0 per cwt. (Rs. 7-12-0 being protective & Rs. 1-5-0 being equivalent ex- cise duty from 1st April 1934)
1935-36	190	324	" "
1936-37	23	51	" "
1937-38	18	25	Rs. 9-4-0 per cwt. (Rs. 7-4-0 being protective and Rs. 2-0-0 being equivalent excise duty from 28th February 1937)
1938-39	45	45	" "
1939-40	331	396	Rs. 8-12-0 per cwt. (Rs. 6-12-0 being protective & Rs. 2-0-0 being equivalent ex- cise duty (With effect from 1st April 1939))
1940-41	66	18	Rs. 6-12-0 being protective and Rs. 3-0-0 being equivalent excise duty. (With effect from 1st March 1940.) Rs. 9-12-0 per cwt.
1941-42	107	19	Rs. 11-1-7 1/5 per cwt. with effect from 1st April 1942 (i.e. including 20% surcharge on ordinary import duty of Rs. 6-12-0) and Rs. 3-0-0 being equivalent excise duty.
1942-43	...	5	
1943-44	...	41**	
1944-45	...	35**	

Annual statement of sea-borne trade (Burma excluded from 1937-38).

¹ These figures appear to be too large, looking to imports reported to be negligible. On an enquiry, however, we were informed that they represent duty collected in those years on sugar released from Bond out of stock imported during 1941 and 1942.

TABLE No. 33
Java Sugar Statistics from 1935-36 to 1940-41¹
(In Long Tons)

Crop Year	Initial Stock on 1st April	Production	Exports	Local Consumption	Final Stock on 31st Mar.
1935-36 ...	1,585,397	505,528	863,356	285,013	942,556
1936-37 ...	942,556	583,029	975,003	309,449	241,133
1937-38 ...	241,133	1,392,151	1,017,276	306,522	309,486
1938-39 ...	309,486	1,376,824	1,163,809	315,922	206,579
1939-40 ...	206,579	1,550,462	1,214,125	304,740	238,176
1940-41 ...	238,176	1,579,697	837,342	351,828	628,703
1941-42 ...	(No reliable reports available since occupation of Java by Japanese)				

* Vide Lamborn Weekly Report, issue of June 24th, 1941.

TABLE No. 34

An interesting Table regarding *Per Capita* Consumption of Gur and Sugar in certain Rural and Urban Areas* in pre-war period (1937-38)

Name of Province		Gur		Sugar	
		Urban areas (lb.)	Total for the Province (lb.)	Urban areas (lb.)	Total for the Province (lb.)
United Provinces	...	13'2 (1)	53'9	58'1 (2)	8'3
Punjab	...	18'0 (3)	23'3	50'4 (4)	12'8
Bengal	...	15'4 (5)	22'8	85'5 (5)	6'3
Madras	...	8'9 (6)	12'1	51'2 (6)	4'4
Bombay	...	12'4 (7)	14'4	81'4 (7)	16'3
Sind	...	6'0 (8)	7'2	82'1 (8)	17'8

(1) 22 markets, (2) 29 markets, (3) 6 markets, (4) Delhi, (5) Calcutta, (6) Madras, (7) Bombay, (8) Karachi.

* Report on the Marketing of Sugar published by Central Agricultural Marketing Department (Government of India), 1943, p. 130.

TABLE No. 35

Statement showing Sugar Production and Quotas allotted for Civilian Consumption for the Quota Year 1943-44

Areas	Production during 1943-44 (Tons)	Quota from		Total quota for civilian consumption for 1943-44	Total quota for 1944-45
		Local Production (Tons)	U. P. & Bihar (Tons)		
Assam	16,000	16,000	(Approx. 9,50,000 tons)
Baluchistan ...	.....	.....	4,700	4,700
Bengal & States ...	13,649	13,649	1,34,351	1,48,000	
Bombay & States ...	1,03,225	80,181	1,27,819	2,08,000	
Central India ...	12,172	12,172	12,828	25,000	
C. P. & States ...	.....	.....	33,000	38,000
Delhi ...	.....	.....	19,000	19,000
Hyderabad ...	17,467	17,467	.....	18,000
Jammu & Kashmir ...	15	15	5,985	6,000	
Madras & States ...	66,858	66,858	43,042	1,09,900	
N.-W. F. P. ...	6,253	6,253	11,247	17,500	
Orissa ...	1,695	1,695	6,305	8,000	
Punjab & States ...	28,348	28,348	1,39,652	1,68,000	
Rajputana ...	2,179	2,179	38,821	41,000	
Sind & States ...	.....	.....	31,200	31,200
U. P. & States ...	7,59,436	1,38,500	.....	1,38,500†
Bihar ...	2,12,809	53,500	.....	53,500
Khandsari Sugar ...	80,000†	.....	.....	.....
Total ...	13,04,106	4,20,817	6,28,956	10,86,300 ^{1,2}	

¹ Estimated.

Includes 44,000 tons of khandsari sugar allotted outside the U. P. and 36,000 tons estimated consumption of khandsari sugar in the U. P.

† The U. P. is allotted a further quota of 36,000 tons of khandsari sugar in 1943-44

N.B.—The figures of allotment quota are collected from official sources. But as the cane-crushing season of 1944-45 has not yet been closed and returns of sugar production from Madras, Bengal and Bombay were not available so far, the allotment quotas are provisional and should be taken as such. The quotas have not been finalised at the time this volume has been sent to press and readers may kindly note that there might be some difference in final figures.

NOTE.—Where States are not shown separately their quotas are included in the British Indian Provinces adjoining them.

According to the Sugar Controller of India, Annual quotas for the Provinces and Indian States are fixed by him on the basis of consumption averages during the year 1934-35 to 1938-39. The sugar allowed for civilian consumption in 1942-43 may perhaps be 25 per cent less than the consumption requirements of the country which have appreciably increased as compared with the average of the pre-war years. The population in many towns and cities has increased even as compared with 1941 census figures. There has been a large influx of refugees in the country. The Allied forces stationed in the country have also increased. Again, conditions now are more prosperous than before and this has naturally resulted in a change in the social habits of the people leading to a higher demand for luxury foodstuffs.

THE SUGAR INDUSTRY AT A GLANCE, 1944

Non-varying price for cane in U. P. and Bihar in 1943-44 Punjab and Bengal Fix Higher Prices

Early in November, 1943, the Government announced an increase in the minimum price of cane in U. P. and Bihar from As. 10 a maund which was the price in the 1942-43 season, to As. 12 a maund of cane. At the same time, the factories were directed not to pay the full price to the cane-grower all at once. One-sixth of the price, i.e. two annas a maund, was to be paid in Defence Savings Bonds or Certificates which were to be cashed one year after the war was over. The Government expected that on the basis of production of 9 lakhs tons of sugar in U. P. and Bihar, nearly Rs. 3 crores would thus be withheld from circulation and be of assistance in their anti-inflationary tendencies. The Punjab Government, finding that factories were unable to get cane at Rs. 0-12-0, fixed Rs. 0-14-6 per maund, and the Bengal Government fixed Re. 1 per maund.

Special Reduction in Cane Price towards the end of the Season, 1943-44

With effect from 15th May, 1944, the U. P. Government announced a reduction of Rs. 0-2-0 in the price of cane, i.e. to Rs. 0-10-0 per maund, in order to induce factories to continue crushing and produce maximum quantities of sugar. The full amount was to be paid straight to cane-growers.

Discontinuance of Additional Special Cess of Rs. 0-0-6 per maund of Cane in U. P. and Bihar in 1943-44

Additional Cess of 0-0-6 per maund of cane imposed in 1940-41 to repay the deferred excise duty, for which an amount of Rs. 1,50 crores was borrowed from the Government of India, with a view to enable the Governments of U. P. and Bihar to give a temporary rebate of one rupee per maund of the excise duty, was discontinued from 1943-44 season, as the amount was fully collected and as the sum, along with the interest, was repaid to Government of India.

Raising of Ordinary Cess on Cane from 0-0-3 to 0-1-0 per maund in U. P. and Bihar in 1943-44

The rate of ordinary Provincial cess on cane which was 0-0-3 per maund was, however, raised to 0-1-0 per maund with effect from 1943-44, in U. P. and Bihar, in spite of the protests of the industry. The proceeds of this cess will be credited to Provincial Revenues as usual. No portion of this cess is earmarked for any specific purposes. But in 1942-43, the U. P. Government spent a substantial amount from the General Revenues on (i) Cane Development Department, (ii) the staff for reservation and bonding of sugarcane, (iii) the seasonal staff maintained for the administration of the United Provinces Sugar Factories Control Act, 1938, and the rules made thereunder, (iv) the Sugar Commission, (v) the special staff maintained at the Imperial Institute of Sugar Technology in connection with the technical and statistical work entailed by the Sugar Factories Control Act and Rules, and (vi) the staff maintained in connection with the Sugar Control Scheme of the Government of India.

The U. P. Government realized Rs. 61,07,755, as cess on sugarcane during the financial year 1942-43. This also includes the proceeds of the additional cess of 0-0-6 per maund of cane levied in order to recover the loan advanced by the Government of India in the form of deferred sugar excise duty with a view to assist the sugar industry of the province.

The sum advanced by the Government of Bihar to the industry in Bihar a few years ago in connection with Excise Duty has not yet been recovered in full. There was a sum of Rs. 5,70,000 yet to be realized at the end of November 1943. But the special cess on cane was discontinued from 1943-44.

The total amount collected from the Cane Cess in Bihar in 1942-43, was Rs. 22,74,000 of which Rs. 7,58,000 represented the ordinary cess and Rs. 15,16,000 represented the special cess for repayment of loan to the Government of India.

In Bihar also, the income from the cane cess is merged in the Provincial Revenue and no separate account is maintained of the expenditure from cess. The annual expenditure incurred by Government on the Cane Development and other schemes related to sugarcane generally covers a large portion of the proceeds from the ordinary cess.

The Chairman, Sugar Commission of U. P. and Bihar assured the industry, however, (*vide* his letter to the Sugar Mills Association, No. 5784/Com. E-7, dated the 22nd September, 1943) that "the proceeds of the cess though credited to General Revenues will in due course be utilized for the benefit of the industry and the growers".

Cane Prices and Cane-cess During 1944-45 Season in U. P. and Bihar

In October, 1944, the Sugar Controller for India, after consulting his Advisory Committee, announced an increase of Rs. 1-7-0 in the sugar price, thereby fixing the price of sugar of the standard quality (D. 24) at Rs. 16-4-0 per maund. The Governments of U. P. and Bihar on the basis of this increase fixed a cane price of As. 14|- . Thus the minimum price of cane for the season 1944-45 was fixed at annas fourteen per maund of cane exclusive of cess to be paid by all factories. An exception was made in the case of the Gokulnagar Sugar Factory at Kichha, the cane price in the case of which was fixed at 12 annas per maund. As in the previous year, the two Provincial Governments levied compulsory deductions from the cane price for investing in the National Savings Certificates. In U. P. compulsory deductions were as follows:—

				Rs. a. p.
1.	Kichha Factory	..	..	0-1-0
2.	Factories in Gorakhpur Division	..	..	0-2-0
3.	Ratna and Aira Sugar Factories	..	..	0-2-0
4.	All other Factories	..	..	0-3-0

In Bihar, the Government at the very commencement of the season fixed a cane price of 14 annas and ordered a uniform deduction of 0-2-0 for National Savings Certificates from the cash price. As the season advanced, it was found that the cane price for ryots seemed low in view of the bad crop in Bihar. As the industry considered the price of Rs. 0-14-0 inadequate, a deputation of industrialists waited on His Excellency the Governor of Bihar towards the beginning of December, 1944. In response to the demand of the industry the Governor agreed to abolish the cess of one anna in the case of Bihar factories and permit this amount to be added on to the cane price. With effect from 16-12-1944 the cess of one anna was abolished and the cane price was raised to Rs. 0-15-0 per maund in the case of Bihar. The compulsory deduction in the case of Bihar was fixed at a uniform rate of two annas per maund.

It may be noted that the Governments of U. P. and Bihar also abolished the compulsory deductions from cane prices paid to the cultivators with effect from 25th January, 1945, in response to the requests of the industry. This salutary measure came none too early as it was recognised to be long overdue, both in the interests of the cultivators and the future of the sugar industry.

Cane Prices in Other Provinces

Madras

The basic minimum prices of sugarcane were fixed by the Government of Madras for the season 1943-44 ranging from Rs. 17 to Rs. 20 per ton in accordance with the costs of transport of cane to the factory from the field. In view of the increase in price of sugar announced by the Sugar Controller, prices for sugarcane for the current season of 1944-45 were fixed at between Rs. 20|8|- to Rs. 24|- per ton.

Mysore

The minimum price fixed for sugarcane in Mysore for the factory at Mandya for the 1943-44 season was Rs. 18 per ton. In view of the increase in the ex-factory price of sugar by Rs. 1-7-0 per maund with effect from 20th October, 1944, a proportionate increase in cane-price was under contemplation of the Mysore authorities before the season could start.

GANDHI & CO., (Publishers),
Jan Mansion,
Sir Pherozeshah Mehta Road,
Bombay, 30th July 1945.

M. P. GANDHI,
Editor.

USE OUR QUALITY Papers and Strawboards

GUJARAT PAPER MILLS LTD.

(MILLS AT BAREJADI, B. B. & C. I. Rly.)

AHMEDABAD, No. 2

BOMBAY OFFICE:

JAN MANSION, SIR PHEROZESHAH MEHTA ROAD,
FORT, BOMBAY.

Telephones:

Office: 25961 & 24047.

Res. : 43926.

Telegrams:

"KEEN"

BOMBAY.

“THE SUGAR INDUSTRY AT A GLANCE” (1944)

SUGAR INDUSTRY (PROTECTION) ACT, 1939^{*}

(Present Duties to continue till 31st March 1946)

ACT NO. XX of 1939

An Act to provide for the continuance for a further period of the protection conferred on the sugar industry in British India.

Whereas it is expedient to provide for the continuance for a further period of the protection conferred on the Sugar Industry in British India, and to extend the date before which the Central Government is required under XIII of 1932 Section 3 of the Sugar Industry (Protection) Act, 1932, to lay before the Indian Legislature the proposals referred to in the said Section ;

It is hereby enacted as follows:—

- | | |
|--|---|
| Short Title | 1. This Act may be called the Sugar Industry (Protection) Act, 1939. |
| Amendment of
Sec 3 of Act XIII
of 1932 ‡ | 2. In Section 3 of the Sugar Industry (Protection) Act, 1932, for the figure “1939” the figure “1941” shall be substituted. |
| Amendment of First
Schedule to Act
XXXII of 1934 ‡ | 3. In Item No. 17 of the First Schedule to the Indian Tariff Act, 1934:— |

^{*} Received the assent of the Governor-General on March 31, 1941. For the Sugar Industry (Protection) Act, 1932, and the Sugar Industry (Temporary Extension) Act, 1938, see 1939 Sugar Industry Annual, pages 1 to 4.

‡ As amended, Section 3 of Act XIII, 1932, viz. the Sugar Industry (Protection) Act, 1932, will read as under:—

3. The Governor-General-in-Council shall cause to be made by such persons as he may appoint in this behalf, an inquiry to ascertain if the protection of the sugar industry during the period from the 31st day of March 1941 to the 31st day of March 1946, should be continued to the extent conferred by this Act, or to a greater or lesser extent, and shall, not later than 31st day of March 1941 lay his proposals in this behalf before the Indian Legislature.

‡ As amended, Item No. 17 of the First Schedule to the Indian Tariff Act, 1934, will read as follows:—

17. Sugar, excluding confectionery	Protective	The rate at which excise duty is for the time being leviable on sugar, other than <i>khandasari</i> or <i>palmyra</i> sugar, produced in British India plus Rs. 6-12-0 per cwt.	Upto 31st March 1946
------------------------------------	------------	---	----------------------------

(a) In the fourth column, for the words and figures "plus Rs. 7-4-0 per cwt." the words and figures "plus Rs. 6-12-0 per cwt." shall be substituted;

(b) In the last column, for the figures "1939" the figure "1941" shall be substituted.

It is hereby declared that it is expedient in the public interest that Clause 3 of this Bill shall have immediate effect under the Provisional Collection of Taxes Act, 1931.

By the Protective Duties Continuation Act 1942, the import duty on sugar was continued on the same level up to 31st, March, 1944.

By the Protective Duties Continuation Act 1944, the existing protective duties on sugar [as also wood pulp, paper, silk manufactures, gold and silver thread and wire, (including the so-called gold thread and wire mainly made of silver), and iron and steel manufactures] were continued for a further period of two years, that is, upto 31st March, 1946.

It was observed in the Statement of Objects and Reasons that "in the present unsettled conditions no suitable date on the basis of which enquiries by a Tariff Board can be instituted is available. In the absence of such enquiries it is not possible to ascertain the quantum of protection required during normal years and the object of this Bill is to maintain the *status quo* for a further period of two years, that is, upto 31st March, 1946.

*Note:—*The total import duty on sugar (including the equivalent excise duty of Rs. 3 per cwt. and the surcharge of 20 per cent imposed with effect from the 1st April 1942) amounts to Rs. 11-1-7 1/5 per cwt. with effect from 1st April 1944. It will be continued upto 31st March, 1946.

SUGAR EXCISE DUTY ACT, 1934

(Incorporating amendments made upto March 1940)

An Act to provide for the imposition and collection of an Excise Duty on Sugar.

(For Text of the Act, refer to earlier issues of the Annual.)

INTERNATIONAL SUGAR AGREEMENT.

India does not join after September 1942.

"India was a party to the International Sugar Agreement which was concluded in 1937 with a view to establishing and maintaining an orderly relationship between supply and demand of sugar and to regulate the world prices of sugar. Under this agreement India undertook to prohibit exports of Indian sugar by sea elsewhere than to Burma.

India was released from this obligation not to export sugar by sea, with effect from 1st September 1942, the Government of India having decided not to join in the proposed extension of the International Sugar Agreement.

U. P. AND BIHAR GOVERNMENTS' ACTS

SUGAR CONTROL BOARD (1944-45)

The following persons have been nominated members of the reconstituted Sugar Control Board of U. P. & Bihar by a Notification dated 26th June, 1944, for a period of one year from 1st July, 1944.

The Adviser to H. E. the Governor of U. P., Revenue; The Adviser to H. E. the Governor of Bihar, Development; Mr. D. R. Narang, Basti Sugar Mills Ltd., Basti; Mr. C. O'Malley, Begg, Sutherland & Co. Ltd., Cawnpore; Mr. R. L. Nopany, Calcutta; Lala Gurusharan Lal, Gaya Sugar Mills Ltd., Bihar; Mr. N. A. Shervani, Etah; Lala Har Sahai Gupta, Shanker Agricultural Farm, Bilari (Moradabad); Raja Raghuvendra Pratap Narain Singh, M.L.A., Gonda; Mr. Nasirullah Rahman Kidwai, Bara Banki; Mr. Jamuna Karjee, M.L.A., Darbhanga, Bihar; Chaudhury Kalika Prasad Roy, Bihar; Mr. Satyapal Varma, Cawnpore; Secretary to the Government of Bihar, Development Department and Employment Department; Secretary to the Government of U. P. in the Agricultural Department.

U. P. AND BIHAR SUGAR COMMISSION

In August 1940, the U. P. and Bihar Governments set up a joint "Sugar Commission, which would be the final authority, subject to Government control, on all matters connected with the production and sale of sugar, as well as other matters regarding cane prices, etc." It may be observed that since the institution of Central Control over the industry, the Sugar Controller for India exercises some of the powers relating to sale, cane price fixation, etc. in the interests of an all-India policy and to that extent directs the Sugar Commission and its Chairman in the discharge of their duties.

The Chairman of the Commission is Mr. K. R. Malcolm, I.C.S., who succeeded Mr. J. E. Pedley in 1944. The Cane Commissioners of U. P. and Bihar are *ex-officio* members of the Commission. They are also *ex-officio* members of the Board of Directors of the Indian Sugar Syndicate Ltd. The office of the Sugar Commission is located at Cawnpore.

The Chairman of the Commission also acts as Provincial Sugar Controller for U. P.

U. P. AND BIHAR SUGAR FACTORIES CONTROL ACT

During 1942 the Bihar and U. P. Governments proposed an amendment to the Control Acts with a view to maintain the continuity of work and to continue the operation of the Acts till the end of the crushing season 1946-47. A copy of the Statement of Objects and Reasons was given in the previous Annual.

In November 1944, the United Provinces Government made certain amendments to the U. P. Sugar Factories Control Rules, 1938. Under the new amendment a Technical Committee consisting of six members was proposed to be

set up to plan and organise and direct the technical problems concerning the sugar industry in U. P. The Director of Imperial Institute of Sugar Technology and the Cane Commissioner of U. P. shall be appointed as *ex-officio* members of the Committee and the remaining four shall be nominated by the Government after consulting the Indian Sugar Syndicate Ltd.

The functions of the Technical Committee shall be to advise the Provincial Government with regard to (a) the establishment of new sugar factories in the Province or additions or alterations in the existing plants of the sugar mills (b) and to advise on any other technical and incidental matters connected with the sugar mills referred to it from time to time by the Sugar Commissioner or the Provincial Government. The office of the Technical Committee is to be located at Cawnpore.

GOVERNMENT OF INDIA : DEPARTMENT OF FOOD SUGAR AND SUGAR PRODUCTS CONTROL ORDER, 1943

(As amended upto 30th June, 1945)

No. 1-Sc. (1)/43 :—In exercise of the powers conferred by the Sub-rule (2) of Rule 81 of the Defence of India Rules and in supersession of the Sugar Control Order, 1942, published with the Notification of the Government of India in the Department of Commerce, No. 1-SC(6)/42, dated the 29th June 1942, and modified by subsequent notifications the Central Government is pleased to make the following Order, namely:—

1. (1) This Order may be called the Sugar and Sugar Products Control Order, 1943.

(2) It extends to the whole of British India.

(3) It shall come into force at once.

2. In this Order unless, there is anything repugnant in the subject or context,

(a) "Controller" means the person appointed as the Sugar Controller for India by the Central Government, and includes any person authorised by the Controller to exercise all or any of the powers of the Controller under this Order;

(b) "dealer" means a person carrying on business in the purchase, sale or distribution of sugar or sugar products;

(c) "*ex-factory price*" means price of sugar inclusive of excise duty, packed in accordance with the usual market practice, and loaded at the buyer's option, on buyer's carts, lorries or other means of transport, or into railway wagons at the railway station or siding generally used by the producer, and all incidental charges including those for siding and forwarding, being on account of the *ex-factory* seller;

(d) "producer" means a person carrying on the business of manufacturing sugar or sugar products or both with the aid of electrical energy or any other form of energy which is mechanically transmitted, and is not generated by human or animal agency;

(e) "recognised dealer" means a dealer who has been recognised as such by the Controller for purposes of this Order;

(f) "sugar" means any form of sugar containing more than 90 per cent of sucrose;

(g) "sugar product" means any article manufactured from, and containing sugar not less than 50 per cent of its weight.

3. No producer shall, dispose of, or agree to dispose of, make delivery of, any sugar, except—

(i) to or through a recognised dealer, or

(ii) to a person specially authorised in this behalf by the Controller to acquire sugar on behalf of the Central Government or of a Provincial Government or of an Indian State.

4. (1) If the Controller has reason to believe that the production of special types of sugar or sugar products is likely to affect adversely the production of adequate quantities of ordinary sugar, he may, by general or special order, prohibit, or limit to such quantities as may be specified in the order, the manufacture by any producer or by producers generally of such types or grades of sugar or sugar products as the order may specify, and no producer to whom such order applies shall manufacture any sugar or sugar products in contravention thereof.

(2) For the purposes of sub-clause (1), "producer" includes a person carrying on the business of manufacturing any form of sugar containing more than 90 per cent sucrose including Khandsari sugar, Desi sugar and Bura.

5. Every producer and dealer shall comply with such directions regarding the sales, stocks or distribution of sugar or sugar products as may from time to time be given to him by the Controller.

6. (1) The Controller may, from time to time, fix by notification in the *Gazette of India* the price or maximum price at which any sugar or sugar product may be sold or delivered, and different prices may be so fixed by him for different areas or different types of grades of sugar or sugar products.

(2) Where the price or the maximum price has been so fixed :—

(a) the price at which such sugar or sugar product may be sold for delivery otherwise than ex-factory shall not exceed the price or the maximum price as the case may be fixed under sub-clause (1) for sale ex-factory plus such charges in respect of transport to or in specified areas and other incidental charges as are approved by the Controller;

(b) no person shall sell or purchase or agree to sell or purchase such sugar or sugar product at a price higher than that fixed under the provisions of sub-clause (1).

7. (1) The Controller may, from time to time—

(i) allot quotas of sugar or sugar products or of both for the requirements of any specified province, or area, or market,

(ii) issue directions to any producer or dealer to supply sugar or sugar products to such provinces, areas or markets or such persons or organisations, in such

quantities, of such types or grades, at such times, at such prices and in such manner as may be specified by the Controller, and

(iii) require any producer or dealer to keep in reserve stocks of sugar or sugar products in such quantities and of such types and grades as he may direct from time to time.

Provided that where price or maximum price of any sugar or sugar product has been fixed in accordance with sub-clause (1) of clause 6 the Controller shall in respect of such sugar or sugar product specify the price or maximum price under para (ii) of this sub-clause accordingly.

(2) Every producer shall, notwithstanding any existing agreement with any other person, give priority to, and comply with, any directions issued to him under sub-clause (1).

8. (1) No sugar shall be transported, or offered or accepted for transport, whether by rail, road or water, and whether by a railway servant, common carrier or other person, except under and in accordance with the terms of :—

(a) a general or special permit issued by the Controller in this behalf; or

(b) A Military credit note.

Provided that nothing in this sub-clause shall apply to the transport of sugar not exceeding 20 seers as part of the personal luggage of a *bona-fide* traveller.

(2) A permit issued in pursuance of sub-clause (1) shall be returned by the consignor to the Controller on completion of despatch, or on expiry of the period of its validity, whichever is earlier, with the particulars of actual despatches in the prescribed form.

(3) For the purposes of this clause "sugar" means sugar manufactured by any process, including sugar made in vacuum pan factories from cane or gur or palmyrah jaggery, as well as khandsari sugar, sugar candy (misri) and Bura.

9. The Controller may, by notification in the official Gazette, make rules for carrying into effect the purposes and objects of this Order.

10. Notwithstanding the supersession of the Sugar Control Order, 1942, all notifications, rules, orders, authorizations, quotas, requirements, and directions issued thereunder shall, so far as they are not inconsistent with this Order, be deemed to have been made hereunder, and they shall continue in force until rescinded or modified hereunder.

11. If any person contravenes the provisions of this Order, then without prejudice to any other punishment to which he may be liable, any court trying the offence may order that any stocks of sugar or sugar products, together with the packages and coverings thereof, in respect of which the court is satisfied that the offence has been committed, shall be forfeited to His Majesty.

GOVERNMENT OF INDIA: DEPARTMENT OF FOOD

GUR CONTROL ORDER, 1943

(With amendments up to date)

No. 11-S.C.(6)/43-I :—In exercise of the powers conferred by sub-rule (2) of rule 81 of the Defence of India Rules, the Central Government is pleased to make the following Order:—

1. (1) This Order may be called the Gur Control Order, 1943.

(2) It extends to the whole of British India.

(3) It shall come into force at once.

2. In this order, unless there is anything repugnant in the subject or context,

(a) "Controller" means the person appointed as Gur Controller for India by the Central Government, and includes any person authorised by the said Controller to exercise all or any of the powers of the Controller under this Order;

(b) "dealer" means a person dealing in the purchase, sale, or distribution of Gur;

(c) "producer" means a person carrying on the business of producing Gur;

(d) "Gur" means articles commonly known as Gur, Gul, jaggery, palmyra jaggery, shakkar and rab, and includes raw sugar as also uncrystallised sugar in any other form comprising of original and convertible molasses and other impurities, inherent or foreign, prepared by boiling cane or palmyra juice;

(e) "Sugar" means any form of sugar containing more than 90 per cent of Sucrose.

3. The Controller may, from time to time, fix by notification in the official Gazette for any specified area the maximum prices at which Gur may be sold or delivered, and different rates of prices may be so fixed by him for different areas or different types or grades of Gur.

4. Every producer and dealer shall comply with such directions regarding the production, sales, delivery, stocks, distribution or prices of Gur as may from time to time be given by the Controller.

5. If in the opinion of the Controller the unregulated production of Gur in any area is likely to affect adversely the production of sugar in quantity which in his opinion is required for the needs of the community, he may, by order published in the official Gazette, provide for all or any of the following matters:—

(a) prohibit or restrict the export of sugarcane to any place outside that area;

(b) direct that cane growers in that area shall deliver sugarcane to a specified sugar factory or factories in accordance with such conditions in regard to quantity, price, and time of delivery as may be specified by the Controller;

(c) prohibit, or restrict to such quantities or qualities or both as may be specified by the Order, the manufacture of Gur by all or any class of producers in the said area.

6. (1) The Controller may, from time to time—

(i) allot quotas of Gur for the requirements of any specified province or area, or of any specified market, and

(ii) issue directions to any producer or dealer to supply Gur to such areas or markets or such persons or organisations, in such quantities, of such types, or grades, at such times, at such prices and in such manner as may be specified by the Controller.

(2) Every producer or dealer shall, notwithstanding any existing agreement with any other person, give priority to, and comply with, any directions issued to him under sub-clause (1).

7. No Gur, shall, after such date and from such area as the Controller may notify in this behalf, be offered for transport by railway or in any manner whatsoever by land or river by a consignor or accepted by a railway servant or by any person whatsoever for transport or transported by rail, road or river except under a permit issued by the Controller in such form and subject to such conditions and in respect of such areas as he may from time to time prescribe:

Provided that this clause shall not apply to the transport by railway or in any manner whatsoever by land or river of Gur (a) by a *bona fide* traveller as part of his personal luggage or (b) under and in accordance with military credit notes or (c) under and in accordance with a permit issued by a Provincial authority before the date of this Order.

Explanation.—For the purposes of this clause Gur not intended for the personal use of the traveller and members of his family shall not be deemed to be his personal luggage.

8. The Controller may, by notification in the Official Gazette, make regulations for carrying into effect the purposes of this Order.

9. If any person contravenes the provisions of this order, then without prejudice to any other punishment to which he may be liable, any court trying the offence may order that any stocks of gur, together with the packages and coverings thereof, in respect of which the court is satisfied that the offence has been committed, shall be forfeited to His Majesty.

Control over Movement of Gur

Under a Food Department Notification No. II S.C. (9)/44 dated the 25th March 1944, Gur Controller for India announced that no gur shall be offered for transport by railway by a consignor or accepted by a railway or transported otherwise by land or water from any place outside the area specified by him to any other place except under a permit issued by the Gur Controller for India.

The specified areas are Gur surplus areas from which no gur could be moved to other provinces except under a permit from the Government. The order placed a ban on all private movement of gur from one area or province to another.

THE UNITED PROVINCES MOLASSES CONTROL ORDER, 1944

With a view to regulate the prices and disposal of Molasses in U.P., the Government promulgated by a notification dated the 13th March 1944, the United Provinces Molasses Control Order. Similarly the Bihar Government

also instituted control over molasses and directed disposal of them. A summary of the important provisions of the U. P. Molasses Control Order is given here:—

Clause 3 of the Order reads:—

(i) Every owner or occupier of a sugar factory shall furnish to the Excise Commissioner, U. P., in a specified manner returns relating to stocks of molasses in his possession as required.

(ii) Any person, other than the owner or occupier of a sugar factory, holding stocks of molasses shall furnish to the Controller such returns relating to the stocks of molasses in his possession as required.

Clause 4 of the Order lays down that no person shall export, or cause to be exported by rail, river or road, molasses outside the United Provinces except on such terms and conditions as may be prescribed by the Excise Commissioner or Controller as the case may be.

Under clause 6 of the Order no person shall move by rail or river from any place in the United Provinces to any other place in the United Provinces except with the permission of the Excise Commissioner or Controller as the case may be.

In pursuance of clause 8 of the United Provinces Molasses Control Order, 1944, the Governor was pleased to direct that the molasses mentioned in the statement below shall not be sold or offered for sale in the area noted against each at prices higher than those mentioned against it. The prices are ex-factory prices and inclusive of the cost of loading a tank wagon where transport is by rail and of filling the containers where transport is (a) by rail but not in a tank wagon or (b) by any means other than by rail.

Serial No.	Kind of Molasses	Area	Maximum Price per maund	
			Ordinary or liquid molasses	Cheeta or concentrated molasses
1	Cane molasses the final residual by-product of sugar factories manufacturing sugar from sugar factories.	Meerut Division.	Rs. a. p. 0 6 0	Rs. a. p. 1 0 0
2	Cane molasses the final residual by-product of sugar factories manufacturing sugar from sugar-cane served by railway stations on the Broad Gauge or by stations both on the Broad Gauge & the Metre Gauge.	Any place in U.P. except the Meerut Division.	0 4 0	0 12 0
3	Cane molasses the final residual by-product of sugar factories manufacturing sugar from sugar-cane served by railway stations on the metre gauge only.	Do.	0 2 0	0 8 0
4	Gur molasses the final residual by-product of sugar refineries operating on vacuum pan system.	Any place in U.P.	0 6 0	1 0 0

INDIAN CENTRAL SUGAR-CANE COMMITTEE FORMED IN 1944

The Government of India announced their decision to set up a Central Sugar-cane Committee by a resolution No. F 41-24/43A dated 6th June 1944, of the Education, Health and Lands Department.

The following is the text of the Government resolution, dated 6 June 1944, published in the *Gazette of India*.

Taking into account the expansion of sugar-cane research work and envisaging considerable further developments in the near future and the need for post-war re-adjustments, the Sugar Committee of the Imperial Council of Agricultural Research in October 1941, recommended that a Central Sugar Committee should be constituted on the lines of the Indian Central Cotton Committee and with somewhat similar powers and functions. This resolution was endorsed by the Governing Body of the Imperial Council of Agricultural Research in July, 1942. The Government of India agreeing with the Sugar Committee and the Imperial Council of Agricultural Research, have accepted this recommendation in principle and decided to set up a Central Sugar-cane Committee, which will be a body corporate registered as a society under the Registration of Societies Act (XXI of 1860) with Head Quarters at Delhi or such other place as the Committee may decide.

Functions :—The functions of the Indian Central Sugar-cane Committee will be to undertake the improvement and development of the growing, marketing and manufacture of sugar-cane and its products in India and of all matters incidental thereto. This includes items such as agricultural, technological and economic research on sugar-cane, gur, sugar and their by-products, the improvement of crop forecasting and statistics, the production, distribution and testing of improved varieties, the adoption of improved cultural practices, enquiries and recommendations relating to banking and transport facilities and transport routes, the maintenance of an Institute of Sugar Technology and other similar matters. The control over the Institute of Sugar Technology will vest in the Committee along the lines indicated later. The Committee will also advise the Central and Provincial Governments concerned on any points which may be referred to it by them, provided the subject matter of the reference falls within the prescribed functions of the Committee.

Constitution :—It is desirable that the growers, the manufacturers and the traders should be fairly represented on the Committee. Subject to a reserve power of nomination by the Governor-General-in-Council so as to permit of appointments to the Committee to meet requirements that may vary from time to time, the Committee will be constituted as follows :—

- (1) The Vice-Chairman, Imperial Council of Agricultural Research, who shall be *ex-officio* President of the Committee.
- (2) The Agricultural Commissioner with the Government of India.
- (3) The Director, Imperial Agricultural Research Institute.
- (4) The Director, Imperial Institute of Sugar Technology.
- (5) The Agricultural Marketing Adviser to the Government of India.

- (6) The Imperial Sugar-cane Expert.
- (7)-(14) The Directors of Agriculture, Madras, Bombay, Bengal, United Provinces, Punjab, Bihar, Mysore and Hyderabad or their nominees.
- (15)-(16) The Cane Commissioners, United Provinces and Bihar.
- (17)-(25) Nine representatives nominated by the Indian Sugar Mills Association, of whom at least two shall be representatives of the Indian Sugar Producers' Association, one representative of the Deccan Sugar Factories Association, one of the Indian Southern Provinces Sugar Marketing Board and one of the Bengal Sugar Mills Association.
- (26) One representative of Sugar Factory Owners nominated by the Governor-General-in-Council.
- (27)-(30) Four representatives of the Gur and Khandsari Industry nominated by the Governor-General-in Council.
- (31)-(38) Eight non-officials representing agricultural interests, one nominated by the Government of Madras, one by the Government of Bengal, two by the Government of United Provinces, one by the Government of Punjab, one by the Government of Bihar and two by the Governor-General-in-Council to represent other areas.
- (39)-(41) Three representatives of Sugar Trade—one nominated by the Bombay Sugar Merchants' Association, one by the Cawnpore Sugar Merchants' Association and one by the Indian Sugar Syndicate.
- (42)-(44) Three representatives nominated by the Governor-General-in-Council to represent the consumers.
- (45) One representative of Sugar Technologists nominated by the Governor-General-in-Council.

The tenure of the appointment of the members of the Committee other than those who are appointed by reason of the office or appointment they hold, will be three years with effect from the 1st April of the year in which they are appointed or such lesser period as may be specified in the notification.

The Secretary of the Committee, who will not be a member of it, will be appointed by the Governor-General-in-Council, but he will be paid from the funds of the Committee. The Director of the Institute of Sugar Technology will continue to be a servant of the Government of India. His salary and allowances will also be paid from the funds of the Committee, but the Government of India have agreed to meet his leave and pension contribution. The Committee will continue to employ at the Institute of Sugar Technology from its own funds such staff as has been tent to the Institute by the Government of the United Provinces on the same basis on which they are at present employed by the Government of India, as also such other staff as are at present on contract till such time as contracts expire.

The Committee will continue to maintain the Imperial Institute of Sugar Technology both as a teaching and as a research institution and will be responsible for the maintenance of sugar standards. Returns under the Sugar Production Rules, the maintenance of sugar trade information services and any special work

that may be required by the Central or by any Provincial Government will be directly under the control of the Director of Institute of Sugar Technology.

Funds of the Committee:—The Government of India will finance the Committee by placing at its disposal the entire proceeds of the Sugar Excise Fund; the amount so credited shall continue to be one anna per cwt. of white sugar produced in British India out of the excise duty levied on it. The question of increasing this amount will be considered after the war. If the amount placed in the Fund in any year falls short of the needs of the Committee, the Government of India will automatically grant a loan free of interest to cover the deficit and enable the Committee to incur expenditure upto a limit of Rs. 11.75 lakhs in the year subject to the condition that the first charge on any surplus occurring thereafter will be the repayment of this loan. The Committee will meet all the present liabilities of the Fund and take over all its assets.

COMPOSITION OF THE INDIAN CENTRAL SUGARCANE COMMITTEE

Under Department of Education, Health and Lands Notification No. F. 41-1/44A, dated the 11th October 1944, it was announced that the following persons had been nominated as Members of the Indian Central Sugarcane Committee.

The first sixteen seats of the Indian Central Sugar-Cane Committee are given to the Officials of the Government of India and the Provinces. The non-official members representing various interests are:

Lala Gurusharanlal, Mr. R. L. Nopany, Mr. K. K. Birla, Lala Shanker Lal, Mr. D. R. Narang, Mr. C. W. Tosh, Mr. Lalchand Hirachand, Mr. A. A. Khan, Mr. B. P. Dalmia, Dr. Chr. H. Nielsen, Mr. Nasirullah Rahman Kidwai, Mr. Banchhanidhi Kar, Sardar Iqbal Singh of Iqbalnagar, Mr. Jagdish Saran Agarwal, Mr. V. T. Ramaswami Ayyar, Mr. Hamidul Haq Chowdhury, Raja Raghvendra Pratap Narain Singh, Lala Har Sahai Gupta, Sardar Santokh Singh of Shakot, Jullunder, Mr. S. Bose of Hasanli concern, Rao Bahadur Shembhedkar, Mian Abidul Huq, Seth Maneklal Ujamshi, Lala Daya Ram, Mr. Karamchand Thapar, Mr. G. V. Deshmukh, M.L.A., Sir Muhammad Yamin Khan, M.L.A., Hon. Mr. Hossain Imam, Sir T. S. Venkataraman.

Lala Shanker Lal was elected Vice-President.

RESOLUTIONS OF INDIAN SUGAR MILLS ASSOCIATION, 1944

**Some Important Resolutions passed at the 12th Annual
General Meeting of the Indian Sugar Mills Association
held on 16th September 1944.**

Shrinkage in Cane Acreage

This Association views with grave concern reports of shrinkage in cane acreage for the season, 1944-45 particularly in Bihar and Eastern U. P. as a result of low sugar and cane prices fixed last year by the Central and Provincial Governments as compared to the general rise in prices of other competitive food crops. The Association regrets that while Government did not agree to increase

the cane prices inspite of Association's several warnings about the possibilities of shrinkage in cane acreage, hardly any steps were taken to ensure that there was no such fall in the area devoted to cane plantation. As a result, this Association apprehends a considerable curtailment in the sugar production of the country in general and in Bihar in particular, and, therefore, urges the Government of India to take immediate steps to maximise sugar production during the season 1944-45, and to ensure that there is an adequate increase in the cane plantation for the season 1945-46.

Distribution of Sugar

This Association regrets that inspite of three years' Government control over the distribution of sugar, its shortage continues and that at many places people have to pay more than the controlled rates for their requirements. This Association is of considered opinion that besides the necessity of increased production the existing machinery of distribution, which works through official channels and seeks little co-operation from the industry and public, needs a thorough renovation. This Association, therefore, strongly urges the Government to take immediate steps in this direction.

Molasses Control Order in U. P. & Bihar

This Association regrets that the Governments of U. P. and Bihar have promulgated Molasses Control Orders to control the movement of molasses although even the elementary conditions necessary for the control of a commodity, such as shortage in supply or an abnormal rise in prices etc., are completely absent. This Association has all along been opposed to the institution of any control on molasses, because

- (1) the supply of molasses in the U. P. and Bihar is far in excess of even the increased demand for molasses.
- (2) the average price of molasses obtained by the factories in these two provinces was below the level of the prices of other commodities.
- (3) the restriction on the movement of molasses has resulted in the accumulation of huge stocks thereby putting the factories to serious difficulties as regards its shortage, particularly, when new tanks cannot be constructed due to scarcity of materials.

This Association, therefore, urges the two Governments to withdraw the Molasses Control Orders forthwith.

Levy of an Export Duty on Molasses in U. P. & Bihar

This Association protests against the action of the U. P. and Bihar Governments in levying an export duty of Rs. 2/- per maund which has been lately reduced to Re. 1/- per maund. This Association is of the considered opinion that even the reduced duty is disproportionately high as compared to the low prices of molasses which vary between -/2/- to -/8/- per maund.

Restrictions on the Transport of Cane

This Association regrets that the Railways and the Provincial Governments propose to impose restrictions on the transport of cane during the next crushing season which are likely to curtail the cane supplies to the factories very considerably.

This Association invites Government's attention to the peculiar conditions prevailing in the Sugar Industry such as the perishable nature of the raw material, the seasonal nature of its working and the continuous process of manufacture which render it essential that the crushing operations must be carried out within certain time-limits and without any interruptions. This, in the opinion of the Association, is possible only if the Government extend to the sugar factories the necessary transport facilities.

This Association, therefore, urges the Government not to enforce restrictions on transport of cane.

**RESOLUTION ON THE MAXIMISATION OF
SUGAR PRODUCTION (1945)**

The Government of India, Food Department, convened at New Delhi, a Conference of all the representatives of sugar interests and Provincial and State Governments on the *5th February 1945*, to consider measures for the maximisation of sugar production in the country. The Indian Sugar Mills Association was represented at the Conference by Lala Shankerlal, Mr. K. K. Birla, Mr. C. W. Tosh and Mr. Gulabchand Hirachand. The Conference adopted a number of resolutions detailing the steps to be taken for the maximisation of sugar production in India in the immediate post-war years. It is understood that the Government of India have promised to take necessary action to implement the decisions arrived at the Conference.

A summary of the main decisions arrived at the Conference is given below:—

1. That it is the intention of the Government to maximise sugar production in India during the current season and the coming season. Steps shall be taken to step up production during the next season of 1945-46.
2. That efforts would be made to arrange adequate supplies of the following manures for the cane growers : (a) ammonium sulphate, (b) caustic cake, (c) groundnut cake, (d) superphosphate, and (e) neem cake.
3. That Government would also undertake distribution of subsidised manures to cane growers through the factories.
4. That efforts would be made to provide adequate irrigation facilities to the cane growers. In this connection, it was urged that the Government of U. P. be urged to withdraw the increase in the irrigation charges, as enforced by them for the cane growers only.
5. That agricultural machinery such as tractors, etc. would be made available to the factories running their own farms.

6. That the Co-operative Societies undertaking the supply of cane to the sugar factories should resort to selective harvesting, that is, selecting cane according to maturity so that factories receive fully mature cane giving maximum recovery. This would enable factories to obtain higher recoveries.

7. That the minimum cane price would be declared in early *September* every year.*

8. That facilities would be arranged for the factories which were shifting from deficit cane areas to surplus cane areas to enable them to catch the next season.

9. That the Provincial Governments would not take any action without previous reference to the Government of India, which might adversely affect the sugar production. *In this connection, it was also agreed that the Government of Bombay be urged to exclude the cane growers, whether companies or individuals, from the operation of the Bombay Growth of Food Crops Act, 1944, as that was likely to curtail sugar output of the province during the 1945-46 season.*¹

10. That the lack of transport constituted a serious bottleneck in obtaining cane from outstations and, therefore, efforts should be made to arrange for adequate supplies of trucks, petrol, tubes and tyres and to increase wagon supply on the respective railways with a view to enabling the factories to draw as much cane as possible.

It was also agreed, in this connection, that only a free supply of wagons could improve production during the current season of 1944-45.

11. That steps would be taken to control both the price and movement of Gur effectively.

12. *That the sugar prices would be revised, if necessary, in the light of the recommendations of the Joint Sugar Control Board of the U. P. and Bihar at the end of this crushing season but with retrospective effect.*

—————:O:—————

A WORLD SUGAR PICTURE AND INDIA'S POSITION THEREIN

DO YOU KNOW (it would be interesting to know) that:

1. Sugar is one of the cheapest, most universally used and palatable seetening agent of proved high calorific value, unique for quick conversion into energy, contains 100 per cent carbohydrate and its value as a prime and vital food is enhanced due to the shortage of carbohydrate in general all over the world.

2. The world production of sugar 1944-45 was only of the order of 19 million tons as compared with 30 million tons in the pre-war year.

* The Editor of this Annual Mr. M. P. Gandhi, when he was a Member of the U. P. & Bihar Sugar Control Board moved such a Resolution in 1938 emphasizing the necessity of an announcement of cane prices, early in September, every year.

† We hope the Bombay Government will do this in the interest of the sugar industry in the Province.

3. It is essential for India to produce larger quantities of sugar both for meeting the increased internal requirements and also for exporting to neighbouring countries which are starved of sugar.

4. The drive for an all out production of sugar can easily result in production of about 15 lacs tons of sugar with the existing capacity of factories in India. When need for further increase in capacity is felt, it would be desirable to locate further factories outside U. P. and Bihar in order to arrange for a proper dispersal of the industry all over the country.

5. If the industry continues to be encouraged, India may eventually become a world sugar market, being one of the greatest sugarcane producers.

6. Approximately two-thirds of the sugar produced in the world is from sugarcane and balance from beet. (90 per cent of the beet sugar comes from the European countries.)

7. Production of sugar (including Gur) in India approximates to 26 per cent of the total cane sugar production of the world and to 16 per cent of the total sugar production in the world, both from cane and beet. (This refers to pre-war period.)

8. The area under cane in India, i.e. 4 million acres, which is only 2 per cent of the cultivated area in India, is approximately 35 per cent of the world's sugar cane area.

9. Taking Gur and sugar together, India is the largest single sugar-producing country of the world.

10. The total quantity of sugar transported by railways in India per year comes to about one-thousandth of the total quantity transported by railways, viz. 90 crores tons.

11. A Sugar Research Foundation has been established in New York in 1943, comprising growers and processors of cane and beet sugar for research work in increasing the consumption of sugar through the development of new industrial uses, and establishment of a proper place of sugar in the diet.*

12. It is worthwhile to explore the possibilities of production of sugar and gur through palm trees in India.†

13. The number of factories, working by the sulphitation process, in India is 144 as compared with 17 working by the carbonatation process which latter can produce superior quality of sugar at a slightly higher cost.

14. The Indian Sugar Industry—the second largest national industry of the country—represents investment of capital to the extent of about Rs. 33 crores.

15. The total annual value of sugar and Gur produced is about 100 crores.

16. The industry gives employment to 3,000 graduates, 1,00,000 skilled and unskilled workers, and interests not less than 20 million cultivators, and helps to retain in the country a sum of Rs. 16 crores which was being sent abroad.

M. P. GANDHI

* Vide "Problems of Sugar Industry in India—Scope and Prospects of Re-organisation", by Mr. M. P. Gandhi, with a foreword by Sir Purshotamdas Thakurdas, K.B.E., C.I.E. 375 Pages. Rs. 12. To be published in October, 1945.

† Vide Appendix III of the above volume.



THE INDIAN SUGAR INDUSTRY— (1944 ANNUAL)

EDITOR: M. P. CANDHI

*(A Review of the Sugar Industry in India during the 1943-44
season and comments on the 1944-45 season).*

Introductory

The 1943-44 season will go down as a memorable and momentous year in the annals of the Indian Sugar Industry for more than one reason. Firstly, it is the most outstanding year in the midst of the Second World War when every industry has been geared to its highest pitch of production and called upon to contribute its utmost to the supreme and unprecedented needs of war. The impact of the war on the economy of the country was fully felt during that period and led to several repercussions in the working of every industry including the sugar industry. Secondly, it is the year in which the Sugar Industry in India made an impressive contribution by setting a war-time record for production, and thus helping in the furtherance of the campaign for maximisation of sugar production in spite of numerous handicaps of non-availability of new materials, sulphur, etc. Production was the highest on record in the United Provinces while for the whole of the country, it was only slightly less than the record output of 1939-40. The area of sugarcane planted was estimated at 4,113,000 acres as against 3,600,000 acres in the year 1942-43, showing an increase of 14 per cent. As against the production of 10,70,700 tons of factory sugar in the previous season, the output of mills for the year 1943-44 reached the figure of 12,16,400 tons thus showing an increase of 13.61 over the previous season. On the whole, therefore, the season 1943-44 proved to be one of full production for the Indian Sugar Industry.

Working of the Season 1943-44

In the season 1943-44, 151 factories worked out of a total of 164 factories existing in India. The cane-crushing season in U.P. and Bihar started rather late while in other provinces the duration of the season was longer than in the above two provinces. In U.P. the crushing of cane by factories began briskly in the second week of November and lasted till the end of the second week of April, while in Bihar it began in the last week of November and ended with the first week of May. In "all other provinces," the season lasted longer covering the six months from November to April. In provinces other than U. P. and Bihar, the crushing was irregular and it began early in some places and late in other places, the season lasting in some cases till the end of May, 1944. The maximum number of days worked by any factory in India reached the figure of 255 days while the average number of days for the whole of the country was 117. Due to a favourable

crop season for the sugarcane, the rigorous and strict enforcement of the Gur Control Order, elimination of the bottleneck of rail transport and coal shortages and supply of adequate quantities of cane to the mills, etc. production of sugar was maintained at a high level, despite the late starting of the crushing season in some areas, increased cost of production and the difficulties in procuring stores and other materials necessary for sugar production. The only provinces in which there was a decrease in production compared with the previous season were Bengal and Bihar. The conditions of famine and the break-down in the economic fabric of the province of Bengal were responsible for the decrease in production of sugarcane crop and consequently of sugar production as well. In Bihar there was acute shortage of cane, while in Bengal, for various reasons, many factories did not work to full capacity. But on the whole the sugar industry did well in the season 1943-44 and showed its remarkable powers of resilience to meet the demands of abnormal war conditions and also increased civilian consumption.

Third Year of Control and Its Success

The third year of control over the industry can also be said to have achieved a fair measure of success. The machinery of control was perfected and improved in many ways by the method of trial and error. Controls have been made comprehensive and extended in their scope and operation. The comprehensive Sugar and Sugar Products Control Order of July 1943 superseded the earlier Sugar Control Order while strict watch was kept over the production, distribution, movement and prices of Gur in U. P. and Bihar. By the Gur Control Order forward trading in Gur was prohibited in U. P. and Bihar in 1943 and transport of Gur by any means to places outside the province without a permit from the Gur Controller was banned. The functions and powers of the Sugar Controller and Gur Controller of India were combined in one person and the Sugar Controller was also appointed as Gur Controller for India. Thereby the conflict that might arise by separation of the functions of the two offices was not only avoided but a harmonious and co-ordinated policy for all-India was worked out. Thus by a process of centralisation and concentration, a comprehensive and uniform policy of controls was evolved from out of the chaotic rules and regulations issued from time to time by the Centre and the Provincial Governments. In the place of previous piecemeal and ineffective legislation, an all-India Central Control over production, prices and distribution of sugar and sugar products was finally established. As remarked in last year's *Annual*, the recognition of mistakes in the operation of control measures and the rectification thereof accounted for the success of controls. This is not to say that there are still no loopholes lurking in the administration and operation of Sugar Control measures. Suffice it to note that a larger measure of success was achieved than before. Co-operation between the Provincial Governments, States and the Central Government which was lacking before was much in evidence as a factor conducing to the success of controls on the administrative side.

Industry Reconciled to Controls

Another noticeable factor during the year which accounted for the satisfactory results of 1943-44 season was the attitude of the industry towards the authorities and the controls in particular. The cry of de-

control of the sugar industry which was renting the skies in 1941 gave place to a sober reconciliation to the need and utility for some form of control in war-time. Despite administrative difficulties and the not unoften display of excessive authority by local officials in the enforcement of rules, there was in evidence a spirit of continued and healthy co-operation and understanding among the industrialists and the Government. The industry carried the burden of controls willingly and tried by timely criticism to help simplify the cumbrous details of administrative procedure. It may be pointed out that the mill-owners and managers accepted wholeheartedly the goal of maximum sugar production and at times almost forced the authorities into conceding their demands in pursuance of that policy and influenced official opinions considerably. Having accepted controls as necessary and inevitable in war-time, the industrialists concentrated their attention on improvement of the operation of controls and by public criticism tried to remedy the defects in the system. On the whole the industry and the authorities got on well as a team working for a common objective. This is the central and most encouraging fact for a hopeful future of the sugar industry in the final stages of the war and when transition from war to peace is about to take place.

Room for Improvement in Controls

This does not mean that there was left nothing to be desired and that everything in the Garden of Eden looked rosy and smiling. There were, on the contrary, many shortcomings in the scheme of things and one such was the impudent spurning of the hand of co-operation offered by the Indian Sugar Syndicate in the matter of distribution of sugar in U.P. where it maintained a chain of selling depots for the orderly disposal of sugar to the consumers at their door. Again, the industry several times urged the abolition of the deduction of two annas per maund in the price paid to the cultivators of sugarcane in U.P. and Bihar for investing the sum compulsorily in Defence Savings Certificates, but the authorities paid no heed to the advice until late in 1945 when they were forced to suspend it. Similar apathy was also shown in the case of the pleadings of the industrialists for increase in the prices of sugar, and cane-crop. Although by mutual contact and honest discussion of the problems round the table, many of the differences were ironed out, it cannot in general be gainsaid that there is still a lack of confidence on the part of the authorities towards the leaders of the industry. It will be in the interest of all if the industry and the sugar dealers are to be taken even now more directly into the confidence of the authorities in the enforcement and working of controls and the general policies relating to the sugar industry. The post-war planning schemes of the Government of India, and also of the U.P. and Bihar Governments cannot be properly inaugurated in due time if there is not complete co-operation of the industrialists concerned. Moreover, such vital problems as import of machinery and stores and the economic effects of transition from war economy to peace and plenty economy cannot be tackled by the authorities without the help of the industrialists. Mutual trust and co-operation, besides, is all the more important as no controls will succeed unless there is complete support of the trade and the public behind the authority.

Rationing in Urban Areas and Consumption of Sugar

The increased internal consumption of sugar and military demands necessitated the continuance of rationing of sugar which was introduced in the urban areas in 1942. Big cities like Bombay, Calcutta, Madras, Delhi, etc. where the *per capita* consumption of sugar is high in India were required to adjust themselves to the inadequate allowances and quotas allotted to them under rationing. It has been pointed out by some that it would be desirable for Government with the present level of production to provide more liberal quotas in the cities for individuals and thereby increase consumption to make up for the deficiency of other energising and nutritive foods. Cutting down compulsorily the consumption of sugar in the country by rationing will prove harmful in the long run for the permanent interests of the industry when once the abnormal demands of war disappear. But the authorities do not seem to have heeded these appeals as no increases were so far promised in the individual ration quotas. In the rural areas where the consumption of Gur normally exceeds that of sugar no attempt for rationing of sugar was made because of the difficulties involved in the process of distribution. Since 1942 consumption quotas for each Province and State were fixed on the basis of previous figures of consumption in that area and the Sugar Controller was entrusted the work of proper distribution and supply of sugar to the different areas from the all-India pool consistent with the need of economy in transport.

Chief Features of 1943-44 Season

The season 1943-44 was characterized by one aim, viz. to make an all-out effort to produce the maximum quantity of sugar and every inducement in furtherance of it was offered. Production of sugar by factories from cane totalled 12,16,400 tons. The U.P. contributed 7.3 lakh tons while Bihar contributed 2.1 lakh tons. The excellent results of the season were due to a number of factors. Firstly, as grain prices gradually went down and with it gur prices also due to strict controls, the minimum cane price of 12 annas per maund despite the usual savings deductions of 2 annas, proved to be adequate enough to attract cane to factories. The gur control measures especially in U. P., proved very effective and there was a good sugarcane crop in the province. That is why out of 12.16 lakh tons of factory made sugar in India, 9.4 lakh tons, i.e. more than 75 per cent was supplied by U.P. and Bihar. In other provinces also production was satisfactory as the contribution from factories stood at 2.75 lakh tons. Secondly, distribution of sugar was also fairly satisfactory, although black markets were reported in several places in Bengal and Punjab. The Sugar Controller and the authorities holding delegated powers from him acted promptly in arranging wagons for transport of sugar from factories to the consuming centres and the stock position was satisfactory. The total physical stock at the commencement of the season 1943-44 on 1st November 1943 was about 1,20,000 tons and this could not be considered heavy. It was also gratifying to note that sugar despatches were kept at reasonable levels and despatches from U.P. and Bihar to the deficit provinces amounted to 70,263 tons on a monthly average. Thus the easy disposal of stocks by mills was one of the most remarkable features of the season. It may be pointed out that before the cane-crushing season of 1944-45 opened, i.e. on the 31st December 1944 there was only 94,000 tons of old season's sugar

to go into consumption and for this achievement credit should be given to the Sugar Controller for arranging transport facilities.

Thirdly, the recoveries obtained in the season 1943-44 were also satisfactory, the average being 9.9 for U. P. and 10.5 for Bihar while the all-India recovery stood at 10.02.

Lastly, there was good demand within the country for almost the entire output of sugar. The demand both of the Defence forces and the civilian population also increased. Owing to cessation of imports sugar was required for the manufacture of confectionery and other sweetening things. The present productive capacity of the industry is hardly equal to the demand and the country can easily absorb even an output of 15 lakh tons, with a slight improvement in the economic conditions. There is, therefore, scope for continued drive for production of more sugar.

World War II Opens A New Chapter for Sugar Industry

As mentioned in the previous *Annals*, the war completely changed the outlook of the sugar industry in India. Several new factors came into existence and the industry worked under abnormal conditions created by war. The season 1939-40 marked the beginning of new era and it also closed a chequered period in the fluctuating fortunes of the sugar industry since the grant of protection for the first time in 1932. For an industry suffering from low prices, depression and want of outlets for disposal of accumulated stocks in factories, the war created an unprecedented demand. As the impact of war was felt slowly on the economy of the country, the demand for sugar was also increasing gradually till the end of 1942 when it reached high levels owing to the Japanese war and loss of Java and Philippines.

The history of the sugar industry in the pre-war years was characterised by alternate periods of prosperity and depression and sugar producers experienced difficulties in bad times. Although the sugar industry since the grant of protection made remarkable strides of development, it did not gain that momentum and stability which were usually associated with manufacturing trades. A number of factors like the vagaries of sugarcane crop cultivation, crop pests and diseases, the imposition of excise duty and frequent increases therein, the control of the affairs of sugar in certain provinces, the introduction of sugar cess, restrictions on acreage and output, the low prices for *gur* and sugar, the slack demand for sugar in the country, difficulties in production of sugar at the mills and the possibilities of foreign imports swamping our markets, etc. contributed to the ills and instability of the industry in the period before the outbreak of the war. The two years preceding the outbreak of war in September 1939 were years of depression for the sugar industry and with low prices, factories were finding it difficult to dispose of the stocks. The record production of 1939-40 only accentuated the situation by piling up huge stocks at mills which were striving hard in search for consumers. This was the position before the war.

Industry affected by War, at a late stage

As mentioned above, the world catastrophe changed the whole perspective and the sugar industry gradually entered into a new phase. Market for all sugar produced in India was first assured because of military demands.

But the sugar industry, like the coal industry, was not in any way affected by the war till a very later stage. The reasons were not difficult to seek. Till the fall of the Netherlands East Indies, the Phillippines and other sugar producing areas in the Far East, Indian sugar producers were not touched in any way. But with the spread of war into the Far East and the occupation of Java and other islands, which accounted for nearly 2 million tons of sugar, the burden of bearing the brunt of sugar supplies in the East for Allied armies fell upon the Indian sugar industry. The sugar industry revealed its enormous potentialities under the stress of war and tried its best to meet satisfactorily all the demands made upon it.

Effects of War on Sugar Prices

In December 1941, Japan made a sudden attack on U.S.A. by bombing Pearl Harbour. It rapidly marched its forces and conquered vast territories in the Far East. The Phillippines, Malaya, East Indies, Burma and other important places went into enemy hands within a short time. The first crippling blows staggered the United Nations and the victories of Japan created considerable panic. The initial effect of Japanese victories was rather bearish on the Indian markets and prices declined everywhere. The confusion and uncertain conditions attendant in the wake of enemy successes persisted in the Indian markets for a number of months and it was feared that the enemy might even attack India itself. It was only late in 1942 that there was an intensification of the Indian war effort and the resources of the country were fully harnessed. The year 1943 witnessed fuller mobilisation of men and materials for the defeat of the enemy. Simultaneous with the mobilisation of economic resources, the sugar industry, like other industries, also was pressed into war service and prices began to gradually recover to the normal from 1942 onwards. With increased Allied war expenditure in India, an upward swing in prices began. For our purpose, it is enough to remember that the sugar industry was directly influenced by war only at a very late stage and as a result of international developments at the end of 1941.

Sugar Industry's Controlled Profits

With the entry of Japan into the war and the loss of sugar producing areas in the Far East, the entire outlook of sugar industry in India was changed and the industry assumed a different complexion. It became clear that the sugar industry in India was to undertake the entire burden of war supplies in the East and also the additional responsibility of filling up to some extent the gap left by the elimination of Java from the world's sugar markets. With the opening of unlimited demand outlets for sugar, the stock position improved in a short time and all restrictions on output were removed. Since 1942-43 it has been the aim of the industry to maximise the production of sugar and take advantage of the new factors for increased demands of sugar. Simultaneously anticipating the new demands for sugar due to war, the Government of India stepped into the field to control prices of sugar. It was felt that owing to Java being out of the world market, there would be an undue rise in prices and that it was necessary to secure complete control over the sugar industry in the interests of war. An order was passed controlling prices as well as distribution of sugar on the 14th April 1942. Thus the sugar industry was the first to come under war-time industrial controls. A Controller of Sugar was immediately appointed to

deal with the problems of sugar industry. Due to prevailing depression in the previous two or three years prices were fixed low and as time went on prices had to be revised according to the exigencies of the situation. Therefore, being the first industry to come under controls, the profits of sugar industry were mainly official-controlled profits, fixed before the inflation set in motion a train of economic forces that wrought havoc in 1943 and 1944.

Comparison with Cotton Textile Industry

It will be of considerable interest to compare the position and profits of the Sugar Industry with the Cotton Textile Industry, the first biggest national industry in India. It must be observed at the outset that owing to controls the sugar industry was not allowed to take advantage of the improved war conditions and high profits of later years. On the ground of having been accorded a liberal measure of protection, prices of sugar were fixed at a low stage and no allowance was made to increased costs of production thereafter. The sugar industry for its output depends in any year on the sugarcane cultivated in that particular year and mills work only in the crushing season which does not usually last more than four months. The position with the cotton textile industry differs entirely in this respect. With abundant supplies of Indian cotton always available, textile mills can work throughout the year by intensification of effort with the same plant.

The cotton textile industry was directly influenced by war almost at the commencement of the hostilities. The fall of France in 1940 and the blockade of the Mediterranean by the Axis made it evident that in a short time the Indian textile industry was to come into the picture of war supplies. The improvement in the conditions of the Indian cotton textile industry began with the advent of the Eastern Group Council in 1940. The industry was again directly affected by the Japanese war. With the absence of Japan as competitor in the Eastern area and the intensification of war-effort and consequent high demands for war purposes, production of cloth and yarn by mills rapidly increased. With Indian cotton freely available at low prices, mills made an all-out drive for production and benefited very much by war conditions. The profits made by the cotton textile industry were staggering until there came into being a cloth famine coupled with high prices for cloth in June 1943. The profits made by some mills were as high as 400 per cent in the year 1943 before controls were instituted. Control over the affairs of the cotton textile industry came only in June 1943 when prices reached peak levels.* Therefore the Indian manufacturers of cloth enjoyed a period of great prosperity. Although the prices of raw cotton increased very much due to inflation and war, the prices of manufactured cloth were so high that mills were encouraged to produce more cloth and make larger profits. The deflated levels of cotton piecegoods and yarn even under control regime were so high that it was found highly profitable to manufacture more and more cloth. The central fact to be noted is that controls over the textile industry came rather belated and only when prices reached the maximum possible levels. It is for these reasons, it may be stated without fear of contradiction, that for the sugar

* For a study of the position and vicissitudes of the Cotton Textile Industry of India, vide Mr. M. P. Gandhi's *Indian Cotton Textile Industry Annual* for 1944.

industry during war there has never been an approach to the prosperous conditions prevailing in the cotton textile industry. But all the same the sugar industry was able to enjoy comparatively easy conditions in war-time.

Record Production in 1939-40 : Restricted Output in 1940-41 and 1941-42

The first year of the war witnessed record production for the sugar industry in India and the total production, due to a number of favourable factors, including a large cane crop, touched the figure of 12.41 lakh tons for 1939-40. In the season 1940-41, restriction on output was imposed due to the accumulated surplus stocks at the mills. The total production of sugar for that season amounted only to 10.95 lakh tons. Even with this smaller production, the demand position for sugar did not show any signs of improvement. On the other hand in port towns the competition of imported sugar was keenly felt. Due to lack of demand for sugar produced in U. P. and Bihar. the two Governments were obliged to enforce a policy of restricted cane acreage and limited output by the sugar mills in their area. The effects of restricted output were felt in the next year. The year 1941-42 was one of the shortest cane-crushing seasons and production amounted to only 7.78 lakh tons for that year. The difficulties in the way of disposal of surplus sugar stocks persisted throughout the year 1941. It was only when Japan entered the war at the end of 1941 and the initial effects of panic were overcome that a fair demand for sugar began to ease the situation from the point of rapid disposal of stocks. Huge outlets for the demand of sugar were opened and soon demand began to outstrip production. The policy of restriction pursued in the previous two seasons was abandoned and the sugar industry set before itself the aim of maximum production.

In the years between 1940-41 and 1941-42 the difficulties of the sugar industry were not of production but of orderly disposal and sale at fair prices. Hence, control in these earlier stages was mainly over distribution. As the industry had large surplus stocks on hand, suitable means had to be sought for proper disposal to the consumers. This was done by a double method: (a) by first restricting output in the main sugar producing provinces of U. P. and Bihar and, (b) by organising orderly disposal through the Indian Sugar Syndicate Ltd.

Central Control Over the Industry Assumed in April 1942

As pointed out above, the war with Japan created a new situation for the sugar industry in India. It was in the 1941-42 season that control was instituted over the industry by the Sugar Control Order of the Government of India which was brought into effect from the 14th April 1942. The sugar industry was thus the first industry to be brought under central control in India. A detailed reference to the Sugar Control Order and the powers conferred on the Government for fixing ex-factory prices for sugar registering dealers, control over the distribution of sugar from factories to specific markets, arrangements of transport facilities, fixation of consumption quotas for provinces, etc. was made in the previous *Annals* (see 1942 and 1943 *Annals*) and therefore it need not be repeated here.

At the time when control was established, everyone connected with the industry had the definite feeling that due to low prices fixed by the authorities the sugar producers had been unduly penalized and that the

Government were very severe in restricting the margin of profit for the sugar industry. It was also one of the grievances of the industry that before controls were brought into existence it was not consulted properly and that the suggestions made by the manufacturing interests in the matter of distribution and prices were completely disregarded. A section of the industrialists viewed the control measures with suspicion and took the line that controls were unnecessary and unwanted as they would hamper maximum production of sugar and free distribution of it through proper trade channels. There was a strong move urging de-control as the only means of restoring order in the sugar industry.

At the outset there were also a number of glaring defects in the operation of controls. Due to lack of experience and other handicaps in the beginning, existing channels of trade were not utilized and delays in despatches of sugar were frequent, causing considerable handicaps. The mills were also unable to adjust themselves to the new conditions. But in course of time the system of zoning and proper regulation of transport resulted in improved distribution of sugar towards the end of the year 1943.

The improvement in the conditions of distribution was more satisfactory in the second year of control and the Sugar Controller was responsible for the quick despatches of sugar to the various areas according to schedule. The stock position at the end of 1943 was very satisfactory and despite the congestion on railways due to war-effort, wagons for transport were found for as much as 7 lakh tons for the year 1942-43. The existence of "black markets" was curtailed to a greater extent than before, although black markets still prevailed at some places in the country due to the fact that the margin of profits allowed to the traders under control was very small.

Operation of Controls during 1943-44

The year 1943-44 witnessed greater co-operation between the authorities and the trade in the matter of controls and a stricter watch was kept over the production and prices of Gur also. A comprehensive Sugar and Sugar Products Control Order and a Gur Control Order were introduced to control the affairs of the sugar industry. The machinery of control and the administration of various rules were perfected and brought up-to-date to meet the requirements of the situation. Further improvements were effected in distribution of sugar and prices of sugar and cane were also raised. The Sugar Controller was also appointed as Gur Controller and a more direct control was acquired on all aspects of the sugar industry. The existence of the black markets was checked although here and there black markets persisted in distant centres in the country. As observed elsewhere, the elimination of mistakes and the perfecting of the machinery of controls resulted in more encouraging achievements for controls in the season 1943-44. The high production of the season was despatched to the consuming centres quickly and in time to meet the demands of the markets. The stock position at the end of 1943-44 season was also satisfactory.

Present Aim of Control to Maximise Production

It was said at first that the primary intention of control of the affairs of the sugar industry was one of fixation of prices and proper and equitable distribution of sugar in the country. But this limited scope of control had to be given up in favour of a comprehensive one due to war developments.

Since 1942 due to the international developments caused by Japanese conquests in the East, it had been the definite and recognised policy of the industry and the Government to maximise the production of sugar in India. The increased earnings of the people resulted in greater demand for consumption of sugar in the country, for sugar is an energising and cheap nutritive food. Secondly, the war has created vast military demands for sugar as India was the only biggest sugar producing country under Allied control in the East. The sugar industry was called upon to supply the needs of the Allied forces not only in India but also in the whole of Middle East and Africa. Thus internal consumption and the demands of Defence Services required the entire output of sugar. Moreover, the gap left by the elimination of Java sugar from world markets acted as an inducement for the sugar industry to increase exports. But as internal demands outstripped production, it had not been possible for India to take the fullest advantage of the export markets. It was known that in countries like Persia, Turkey and Iraq there had been almost a sugar famine and demand was very keen. In spite of the fact that India was no longer a signatory to the International Sugar Agreement, exports by sea were limited, due to the over-riding needs of war, to a definite quantity, viz. 15,000 tons for 1943 and 17,500 tons for 1944.* Thus, it was not possible consistent with the supply of internal needs to permit more exports during war-time. In accordance with the main aim of maximum production set before itself two years ago, the sugar industry tried its best and produced as much as 12-16 lakh tons in the season 1943-44, in spite of various handicaps of transport, shortage of coal, sulphur, etc.

Minimum Cane Price at Rs. 0-12-0 per Maund in 1943-44

In view of the results of the 1942-43 season as regards sugar production, the diversion of sugarcane for the manufacture of *gur* which had been commanding high prices and the need for encouraging cultivation of sugarcane by the grower in preference to other food crops, at the beginning of the 1943-44 season, a natural anxiety was felt by the representatives of the cane growers and the mills to further urge for an increase in minimum cane prices. In order to give the necessary incentive to both growers and producers the Governments of U.P. and Bihar agreed to fix the minimum prices of cane at 0-12-0 per maund before the season for crushing could start. It was stated by the mill-owners that to give necessary encouragement to the cultivator to grow cane it would be at least necessary to fix the price at 0-14-0 per maund as the minimum. The representatives of cultivators asked for a minimum price of Rs. 1-4-0 per maund. But the Provincial Governments thought that the minimum price of 0-12-0, coupled with the measures to control *gur* and food prices, was sufficient to induce the ryots to cultivate cane and deliver it to the mills. Again their anxiety to further the "Grow More Food" campaign also influenced the opinion of the Government on the fixation of a lower minimum price for cane.

Delayed Payment of 0-2-0 in Defence Savings Stamps

In 1943, the Government of India, with a view to check the rise in prices and to mop off the surplus money in the country, announced their anti-inflationary savings drive. In their desperate anxiety to put into effect

* *Vide* statements by the Hon'ble Food Member in the Legislative Assembly, in 1944.

the compulsory small savings scheme, they hit upon the cultivator of sugarcane crop in U.P. and Bihar. It was thought that in U.P. alone a sum of Rs. 3 crores could be put in Defence Savings if a deduction at the rate of 0-2-0 per maund of sugarcane price paid to the cultivator was enforced as an anti-inflationary measure. Therefore, while announcing the increase of minimum price of cane from 0-10-0 to 0-12-0, they ordered that out of the minimum price fixed only 10 annas per maund was to be paid in cash by factories to the cultivators and the remaining 2 annas was to be paid to them in Defence Savings Stamps or Certificates which could be cashed only after the war was over.

The system of payment of 0-2-0 per maund in National Savings Certificates to the cultivators had been a matter of much public criticism by the cane-growers and the mill-managers since the last two years. It lent itself to much abuse and resentment on the part of growers as well as the mills. The cultivator harboured the vague feeling that the factory-owners and the Government had entered in an unholy partnership to fleece from him a sum of 0-2-0 per maund which rightly belonged to him as price for his produce. He did not understand the full implications of the Government's savings drive. Moreover, as the majority of cultivators in India, even in the most promising years of good harvest and high prices, could not affect much savings, it seemed that the cultivator of sugarcane, of all the peasants, had been singled out for this unfair treatment and had been penalised for growing sugarcane. The psychological feeling that something due to him had been taken away from him was likely to cause harm for the sowing of sugarcane for the next season. The mills, anxious to secure abundant supplies of sugarcane for the next season urged the Governments to abolish the system, and allow cash payment for the whole of the crop delivered to the mills. The fear that the cultivator would take to other food crops in preference to cane because of the greater monetary reward induced the factory-owners to ask for the abolition of the delayed payment system. Moreover, the system of delayed payment in National Savings Stamps involved more work for the mills.

The ryots did not take kindly to the system of payment in Defence Stamps, as the bulk of them were in need of cash. There were numerous instances where the Mahajans and local merchants were reported to have discounted these Defence Savings Stamps at a heavy discount from the cultivators.

Despite repeated appeals from all quarters, Government did not pay heed to the words of the industrialists. It was enforced as a measure in furtherance of the Government's anti-inflationary drive.

In the season 1944-45 also, the Governments of U.P. and Bihar ordered the continuance of the delayed payment system whereby a sum of 0-2-0 per maund was to be deducted and paid in Saving Certificates. It is difficult to understand why the sugarcane grower alone is singled out for this unfair treatment and penalised in this way. As we pointed out last year, it was calculated to produce unhealthy repercussions on the cultivation of cane in the long run in the above two Provinces, if persisted in.

Increase in Sugar Price Only 0-13-0 per Maund from 10th November 1943

Against an increase in the price of sugarcane by 2 annas per maund from the beginning of the 1943-44 season, the manufacturers secured an

increase only of 13 annas per maund of sugar. This was due to the feeling of the Government that in the previous season the increase in price effected by Rs. 2-5-0 was much higher and therefore it should be adjusted by only a small increase in the next season in price of sugar.

Cane Cess in U. P. and Bihar in 1943-44

Contrary to the expectations of the mills, the Governments of U.P. and Bihar, while abolishing the special cess on cane, announced an increase in the cess to one anna per maund in 1943-44. Their decision rather came as a surprise as it was confidently hoped by the mills that the previous cess of 0-0-9 would be reduced by 3 pies and thus allow the mills to keep down the cost of production. The increase of cess to one anna would, it was argued, make an unnecessary addition to cost of production and reduce the already low margin of profits left to the mills.

Sugar (Temporary) Excise Duty, Ordinance

An additional temporary excise duty was levied on sugar in the 1943-44 season. The Finance Member introduced legislation in November 1943, imposing an excise duty at the rate of 0-13-0 per maund on all factory sugar produced in the previous season and yet undisposed of. Mills were asked to pay the excise duty at the source before sugar could be moved from the factory. The levy of this excise duty on last season's sugar lying with the mills denied the mill-owners this extra windfall, which strictly speaking, was not due to them, and put in some more money in the coffers of the Government of India.

Cane Prices in Bihar and U. P. for 1944-45 Season

For the current year, the representatives of the Bihar Control Board strongly insisted on an increase in the price of cane as the province was turning gradually to the growth of cereals in preference to sugarcane as evidenced by the fall in the acreage of the cane-crop. The production of sugar in Bihar in the season 1943-44 was also not encouraging. In view of these things, the minimum price of cane was increased to 0-14-0 per maund for the season 1944-45. With a view, however, to check inflation the Government decided to continue the deduction for payment in Defence Savings Certificates the sum of 0-2-0 per maund and pay to the grower in cash only 0-12-0.

The U. P. Government, with a view to encourage sugarcane growth and pass on the benefit to the cultivator, also increased the minimum prices of sugarcane to 0-14-0 per maund and ordered deductions as follows:

- (a) In case of cane purchased in all divisions of the Province except Gorakhpur division, Aira Factory, Ratna Sugar Mills, and Gokulnagar Sugar Co., Ltd., Kichha, the deduction is to be 3 annas per maund.
- (b) In case of cane purchased in Gorakhpur division, Ratna Sugar Mills, Shahganj and Aira Factory, deduction is at the rate of 2 annas per maund.
- (c) In case of cane purchased by Gokulnagar Sugar Mills, Kichha, the deduction is to be 1 anna per maund.

In fixing the minimum price for sugarcane at 0-14-0 per maund in the whole of the U.P., an exception was made in the case of the Gokulnagar Factory at Kichha where the price was placed at 0-12-0 per maund.

Cane Cess in U.P. and Bihar in 1944-45 Season

The Governments of U.P. and Bihar at the commencement of the season 1944-45 fixed the cane cess at the rate of 0-1-0 per maund as before. But later on the Bihar Government suspended the cess with effect from 16th December 1944. In U.P. the cane cess continued to be collected despite the appeal of the Indian Sugar Mills Association for immediate abolition.

Increase in Cane Price in Bihar to 0-15-0 per Maund

Towards the end of November 1944, when the cane crushing season started in Bihar, a deputation of the industrialists waited on H.E. the Governor of Bihar and represented the difficulties of mills in procuring cane in adequate quantities and urged for an increase in the minimum price for cane. The Governor gave a sympathetic hearing to the deputation and promised to examine the matter. As a result the price of cane was raised to 0-15-0 per maund with effect from 16-12-1944 and the cane cess at the rate of 0-1-0 per maund was suspended in Bihar from that date.

Sugar Prices for the Season 1944-45

In October 1944, the Sugar Controller for India after consulting his Advisory Committee announced an increase of Rs. 1-7-0 in the sugar price, thereby fixing the price of sugar of the standard quality (D-24) at Rs. 16-4-0 per maund. The increase in the price of sugar was necessitated by the increase in the price of sugarcane by 0-2-0 per maund both in U.P. and Bihar.

Abolition of the Compulsory Deduction from Cane Price in 1945

The Governments of U.P. and Bihar abolished the compulsory deduction of 0-2-0 per maund in the cash price paid to the growers with effect from 25th January 1945. This was done in response to public demand and with a view to encourage the growth of sugarcane for the 1945-46 season. This measure, although belated and long overdue, is a welcome one in so far as it goes to allay the fears of the sugarcane grower that he has been unduly penalised for no fault of his. The cultivator, who looks to greater monetary reward for his crop, can only be induced to grow sugarcane if he gets a higher return thereby.

Although the compulsory deduction and investment in the Defence Savings Certificates may help the savings programme of the Government, it cannot be regarded as a real saving as the cultivator even in the period of high prices is not above want. The low standard of living of the agriculturist in India is well-known and so it is difficult to imagine savings from him when the prices of all consumers' goods are soaring up due to inflation. Further the sacrifice involved in forcing small savings upon people who have no means to save is so great that it will not be worth the trouble. That the sugarcane grower (leaving growers of all other crops) should be penalised in this way does not augur well for the future of the industry, and certainly defeats the objective of maximisation of sugar production in

India. However, even the belated abolition of such compulsory savings is to be welcomed as it encourages the growth of sugarcane cultivation and removes the suspicions of the growers in this respect, for the next season.

Forecast of Production of Sugar for the Current 1944-45 Season

The current season of 1944-45 will prove to be one of comparatively low production for sugar. The final forecast of all-India sugarcane crop published by the Director-General of Commercial Intelligence and Statistics, Calcutta gives the acreage figures at 3,997,000 as against 4,113,000 acres planted in the previous season of 1943-44. The decrease in acreage amounts to 116,000 acres or roughly 3.4 per cent over the previous season. The estimated production of factory sugar in India for the year 1944-45 is expected to reach 9,85,100 tons against the actual output of 12.16 lakh tons in the 1943-44 season. The big drop in production amounting to over 2 lakh tons is attributed to decrease of acreage under cane in U. P., Bihar, Bengal and the Indian States. Both in U. P. and Bihar the crushing season opened rather late and closed early on account of shortage of sugarcane. In Madras a slight increase in output is expected as cane-crushing was prolonged upto May 1945.

Working of the Mills and Duration of the Crushing Season in 1944-45

In the season 1944-45, only about 142 cane factories were estimated to be working compared with 151 in the previous season. In U. P. and Bihar the season began so late as the first week of December and ended in middle of April with a large number of factories while only a small number continued beyond that period. In U. P. the average number of working days of factories for the whole season was 97 against 123 in the previous season. In Bihar the average number of working days of factories reached 79 and for the other provinces 107 as against 95 and 111 respectively in the last season for the two areas. The average number of working days for the whole of India for the two areas. The average number of working days for the whole of India was estimated to be 136 as against 151 in the year 1943-44. Thus there is a decrease in the average number of working days of mills in the current season compared with last year.

Moderate Production of Sugar in the Season 1944-45

Because of the short duration of the crushing season and acute difficulty in getting sugarcane by mills, the current season will prove for the Indian sugar industry as one of moderate output. As against the high production of last year the current estimated output may be low but it does not fall too much below the average for the reason that some of the mills towards the close of the season are reported to be making best efforts to crush to the full capacity to avoid sugar shortage. In spite of the fact that the growers in U. P. and Bihar were given two annas more by way of minimum cane price and the latter was fixed as high as 14 annas, factories have not been able to obtain a satisfactory crush due to the shortage of cane supplies.

The fall in duration of working days in the season in both U. P. and Bihar has been considerable and increased costs of production involved in a short season will bring down the margin of profits of sugar mills still lower. The reasons for the disappointing crush of the season are not

difficult to seek. Firstly, the cane acreage has itself shrunk in the two major provinces and there cannot be any doubt that this has been brought about in a large measure by the invidious distinction in the matter of compulsory savings of 2 annas between growers of cane and other food crops. As we pointed out above repeatedly in our previous *Annals*, the deductions of 2 annas per maund in the price of cane created a bad type of psychology and that was responsible for weaning away the growers from cane in favour of other profitable food crops. That the sugar industry should be penalised in this way is regrettable as it has resulted in shrunken acreage of cane. Although this compulsory deduction was subsequently abolished in January 1945, as the season's sowing of cane crop was finished, there would hardly be any appreciable effect on the cane crop of 1945-46. The adverse effects of the levy in the two previous seasons was felt in the cane crop and crush of the season 1944-45. The second reason for the unsatisfactory crush is the closing down of numerous cane purchase centres beyond 25 miles and under 10 miles brought about by the shortage of wagons for cane transport. This restriction operated to the detriment of the mills. According to the Cane Commissioner of U.P. more than 80,00,000 maunds of cane should be deemed lost to the factories on account of this fact alone. The factories which depended upon rail-borne cane could not switch on easily to other means of transport for the simple reason that petrol and tyres were equally difficult to get as they have been rationed. The bottleneck of transport also contributed its share to the low output. Lastly, the *Gur* Control Order at the beginning of the season did not effectively operate and this was partly responsible for the low crush in factories in the *gur*-making tracts. At the commencement of the season, the release of large quantities of *gur* for export, which was obviously made for fear lest *gur* should accumulate and bring about the repetition of the previous season's crisis—had the effect of drawing away a lot of cane for *gur* making.

Hence, total production of factory sugar for the 1944-45 season is expected to be only 9,85,100 tons according to the estimates of the Director of Imperial Sugar Technology, Cawnpore. The average percentage of recovery of sugar from cane for the whole of India is estimated to come to 10.31 per cent as against 10.02 in the previous season, showing a slight increase. On the whole, though not one of high production, the season is expected to close with fairly moderate sugar stocks. With proper distribution arrangements, we hope, there may not be any insurmountable difficulty in maintaining the level of previous years' quotas of consumption in the country. No drastic cuts are required to be enforced by the Government in the making of provincial quotas of consumption for the current year and the public need an assurance not to get alarmed on this account. The Sugar Controller and the Government of India will be ill-advised if, contrary to the public opinion, they lower the quotas of consumption for the provinces in the current year on the ground of short-fed in production of sugar, particularly because, according to our expectation, the 1945-46 season will be one of considerably larger production of sugar.

Brighter Prospects for 1945-46 Season

In view of the anticipated low production of the current season and the shortage of energy foods in the world, the attention of the industry and the Government has already been drawn to the need for putting the utmost efforts to increase production of sugar in India. The resounding

victory achieved by the Allied Powers in Europe in May, 1945, which is a matter for profound gratification for all, has brought with it an added responsibility of feeding the populations of the conquered and freed countries. The Hot Springs Food Conference of the United Nations which met two years ago in April 1943, had envisaged world shortage of energy foods like sugar, potatoes and cereals and urged the need for concentrated and increased production of them in every country. In view of its rich content of carbo-hydrates, the consumption of sugar will certainly increase in the near future in many sugar-famed countries, now that war is over in Europe. The Far East sugar producing countries, even though freed from enemy yoke, cannot, all at once, supply the needs of various countries for sugar. The war against Japan is still to be conducted vigorously from India as main supply base for some time to come. The minimum needs of Burma recently freed from enemy occupation must be met from the Indian sugar pool. Countries like Ceylon, Persia, etc. which are near India, offer excellent scope for export of sugar. The internal consumption which has been kept under check partly by rationing will also come into full play soon. Till the war against Japan is finally closed there will be equally keen demand for sugar on Defence account. So these factors point to the need for maximum production of sugar by all-out efforts in the next season. Even an output exceeding 15 lakh tons a year can easily be absorbed by all the multiple demand sources. We trust that the industry will make efforts in the coming season of 1945-46 to produce at least 13 to 14 lakh tons and establish a record production. Due to the comparative ease in the shipping position of the Allies, now that war in Europe is finished, it will not be too much to hope that facilities for increased production of sugar will be extended by permitting imports of essential machinery, spare parts, sulphur and other stores from U.K. and U.S.A. The Government should, in all fairness, grant priority in this respect for import of the minimum requirements of the mills.

Conference for Maximisation of Sugar Output

With a view to encourage production of sugarcane and the output of sugar in the next season, i.e. for 1945-46, the Government of India in the Food Department summoned a special conference of all the representatives of sugar interests on the 5th of February 1945 at New Delhi. The conference was asked to advise Government on measures for concerting maximisation of sugar production in the country. The conference adopted a number of resolutions detailing the steps to be taken for the maximisation of sugar production in the country, in the immediate post-war period. The Government of India is understood to have promised to take necessary action to implement the proposals recommended by the Conference. The proposals contain suggestions for the long-term development of sugar production as well as plans for the immediate increment of output of sugar.

The main recommendations of the Conference for the maximisation of sugar are given in *Sugar Industry at a Glance*. In view of this it may be stated that the next season will have a promising future for sugar output.

Details of Working of the Season 1943-44

In the season 1943-44, 151 factories worked out of a total of 164 factories existing in India, as against 150 in 1942-43. The distribution of the factories in various provinces in the present and the previous year was slightly

different (*vide* Table in " Sugar Industry at a Glance."). Twelve factories did not operate and one has been excluded from the list since it was a small experimental factory for training students and its output inconsiderable for all practical purposes.

The number of factories working in the United Provinces was 70 against 71 in the 1942-43 season and 70 in 1941-42. The number of factories working in Bihar was unchanged at 31 in the last three seasons. In the Punjab, North-West Frontier Province and Sind the number of factories came down to 2 as against 4 in the two seasons of 1942-43 and 1941-42. 12 factories worked in Madras in 1943-44 season against 10 and 11 respectively in the last two seasons. In Bengal and Assam, due to famine conditions and other causes factories did not work well and the number was only 6 compared with 8 and 9 in the previous two seasons. Orissa had the same number of 2 factories working from the last three years. In the Indian States, due to lighter taxation and other concessions, the number of factories working recorded an increase from 15 to 18. Since the last three years there has been a gradual increase in the number of factories in the Indian States as can be seen from the figures for three seasons respectively as follows:—(a) 1941-42, 13; (b) 1942-43, 15; (c) 1943-44, 18.

It will be noted that there has been in operation a definite tendency in the movement of sugar mills from British India to the advantageously located Indian States due to the onerous and heavy tax levies in the war-time in British India. It is possible that unless suitable measures are taken in time there may be a migration of capital and plant from British Indian provinces to the neighbouring Indian States.

Duration of Cane-crushing and Average Number of Working Days

Owing to the absence of restrictions on cane crush and the availability of cane in adequate quantities, mills were able to crush large quantities of cane and work for a longer number of days. The operation of the *Gur* Control Order also helped the plentiful supply of cane for the factories in time. In U. P. and Bihar the season commenced a little early and lasted longer than usual enabling the mills to work longer days and contribute for the high output.

The average number of days worked by factories in United Provinces was 131 as against 112 in the previous season and in Bihar 93 against 96. "All other provinces" had an average of 110 days against 89 in 1942-43. The average for the whole of India for the season 1943-44 stood at 117 against 101 days recorded in the previous season. Thus the number of working days except in Bihar were higher in the "other provinces" while the number of working days for the whole of India showed an increase of 16 days over that of the last season.

In the United Provinces, the crushing season extended from the third week of November to the middle of May 1944 and in Bihar from the beginning of December to the middle of April. The season was, on the whole, longer than in 1942-43, though in Bihar it was shorter. In the "other provinces" the season was much longer than anticipated and mills had very good opportunity of having increased cane crush. The variety of the crop in different provinces was also responsible for the longer duration of the season.

The advantages enjoyed by certain factories in U.P. resulted in a season of 180 days, the maximum for the province. The maximum number of days worked by any factory in the U.P. in the previous season was only 154. In Bihar the maximum number of days worked by any factory was 129 against 152 in the last year. The maximum for "all other provinces" was 255 against 278 in the previous season. Excepting in Bengal and the Punjab, mills in Madras, Bombay and Indian States showed better working results. Out of a total production of 12.16 lakh tons, the U.P. alone contributed sugar to the extent of 7.27 lakh tons.

Quantities of Cane Crushed by Mills in 1943-44

The maximum number of days worked by any factory in U.P., Bihar and "all other provinces" is 180, 129 and 255 respectively; the minimum number of working days in the three divisions is 80, 9 and 5 respectively; and the average number of days worked by factories in the above places is 131, 93 and 110. The all-India total minimum, maximum and average number of working days obtained by mills are 5, 255 and 117 respectively.

The maximum quantity of cane crushed by any factory in U.P. is 286,800 tons as against 203,700 in the season 1942-43; the minimum 3,700 tons against 5,700 in the previous year and the average quantity 104,700 tons against 84,900 tons.

In Bihar the maximum is 130,000 tons against 141,500; the minimum 1,300 tons against 10,300 and the average 65,100 tons against 70,100. Bihar has recorded smaller and poorer crush in the season 1943-44 than in the previous year.

In "all other provinces" the figures of cane crush for maximum, minimum and average are 203,000, 300 and 55,700 respectively compared with 161,500, 270 and 46,200 in the season 1942-43.

The maximum quantity of cane crushed for any factory per day in the U.P. in the season 1943-44 is 1,903 as against 1,920 tons, the minimum 46 against 65 and the average 803 against 760 tons, in the previous season.

The figures for Bihar for any factory per day are: maximum 1,080 against 1,920; minimum 107 against 100 and the average 720 against 730 tons.

In "all other provinces" the maximum, minimum and average number of cane crushed in tons for any factory per day are 1,903, 14 and 760 respectively as against 1,170, 18 and 520, in the previous year.

For the whole of India the maximum, minimum and average quantity of cane crushed by mills per day are 1,903, 14 and 708 in the season 1943-44 as against 1,920, 18 and 690 in the previous season. (*Vide the relevant tables in Sugar Industry at a Glance.*)

Quantity of Sugar Produced in 1942-43 and 1943-44 Seasons

The production of sugar directly from cane in modern factories in India amounted to 12,16,400 tons in the season 1943-44 against 10,70,700 tons in 1942-43 and 7,78,100 in the season 1941-42. There is a gradual increase in production compared with the last two seasons. The production in 1943-44 is 13.61 per cent higher than in 1942-43. As pointed out before, the higher

production is mostly due to the bigger output in the U.P. There has been a record output in U.P. for the season and this has compensated the loss and small reduction in Bihar and Bengal.

Details of Cane Crushed and Sugar Produced in Different Provinces

In U.P. the number of factories working in the year 1943-44 was 70 against 71 in the last year. The quantity of cane crushed was 7,332,400 tons against 6,028,000 tons while sugar produced was 727,100 tons against 612,500 tons. Molasses produced in the province were 262,600 tons as against 212,300 last year.

In Bihar, the total quantity of cane crushed by 31 factories was 2,018,400 tons against 2,171,900 tons in the previous season with the number of factories remaining unaltered. The quantity of sugar and molasses produced were 212,400 and 68,300 respectively in the 1943-44 season as against 237,400 and 74,400 tons in the last season.

In Bombay, 10 factories crushed cane to the extent of 739,700 tons and produced 81,200 tons of sugar and 28,700 tons of molasses. In the previous season only 9 factories worked and crushed cane of 732,000 tons; produced 77,900 tons of sugar and 28,600 tons of molasses. In Madras the number of factories which worked were 12 against 10 in the previous year and the figures of cane crushed, sugar and molasses produced were 420,400 tons, 39,200 and 17,900 and 291,000 tons 27,500 and 11,300 tons respectively in the two years. In Punjab, Sind and N.W.F. the quantity of cane crushed by the two mills was 174,200 against 129,600 tons crushed by 4 mills in the last season. The sugar produced and molasses obtained were 17,400 and 5,500 tons as against 11,800 and 4,500 tons in the 1942-43 season. In Bengal, six factories worked and the cane crushed, sugar and molasses produced were 175,900, 13,600 and 8,200 tons respectively. The results of the last year were 199,600, 16,500 and 6,600 when the number of factories which worked was 8. In Orissa the number of factories remained unchanged at 2. The quantity of cane crushed, sugar produced and molasses obtained were 17,600, 1,700 and 800 tons as against 21,100, 2,100 and 900 respectively in the past year. In the Indian States the number of factories were 18 as against 15 in the previous season. Cane crushed was 1,259,200 tons against 845,300 in the year 1942-43; sugar produced was 123,800 against 85,000 tons and molasses obtained was 46,700 tons against 30,500 tons.

Percentage of Recoveries of Sugar from Cane

The recoveries of sugar from cane, except in Bihar and Bengal, were on the whole satisfactory. Factories were able to get a good crush and fair recovery in the whole of U.P., while in "the other provinces" the recovery percentages were moderately satisfactory. In spite of the shortage of sulphur, chemicals and lime supplies, it is satisfactory to note that there has been a general improvement from the point of view of technical efficiency in methods of production by mills. It is probable that a regular supply of chemicals and other stores coupled with improved varieties of cane submitted to mills, will enable the factories to show still better recovery percentages. The trend of general increase in recovery percentages during the last 10 years gives hope for increased recovery percentages.

The highest recovery for the season was 12.84 per cent against 13.35 per cent in the preceding season. The average extraction for the whole

country was 10.02 as against 10.28 in the previous season. The recoveries decreased by 0.24 per cent in the United Provinces, 0.40 per cent in Bihar and 0.01 per cent in the rest of India. The decrease was probably due to the longer duration of the season.

The maximum recovery for any factory in the United Provinces was 11.79 against 11.72 in the season 1942-43 and the minimum 6.0 against 7.83. There was a decrease in the United Provinces on the average compared with last year. The average recoveries for the whole of U.P. were 9.92 against 10.16, thus showing a decrease of 0.24 per cent. In Bihar the maximum recovery for any factory was 11.62 against 11.92 in the previous season. The minimum percentages of recovery for Bihar were 2.27 against 9.11, thereby showing the adverse effects suffered by a number of mills during the 1943-44 compared with last year. The average percentages were 10.53 against 10.93. The loss in recovery for the whole of Bihar was 0.40 per cent.

In "all other provinces", the maximum rate of recovery was 12.84 per cent and the minimum 2.85 per cent and the average 9.94 per cent. The respective figures for the 1942-43 season were 13.35, 5.00 and 10.28 per cent.

Whatever be the minimum percentages of recovery in the individual provinces for any factory, the season 1943-44 gave good recoveries on the average for the whole of India. Compared with the average recovery of last year which was 10.28, the recovery for the 1943-44 season which stood at 10.02 was only a little less and the decrease could not be regarded as considerable.

Sugar Production Forecast in 1944-45 Season

Some details about the workings of the current season of 1944-45 till the end of May 1945 have already been referred to above in connection with the sugar prices and their effect on sugarcane cultivation. The second Memorandum on the production of sugar directly from cane in modern factories in India during the season 1944-45 by the Director, Imperial Institute of Sugar Technology, Cawnpore, estimates the total production at 9,85,100 tons for the current season as against 12,16,400 tons last year. This means that the production of sugar directly by mills will be less by nearly 2.31 lakh of tons. The reasons for the smaller production are many and among them the most important is the smaller acreage in U.P. and Bihar due to the penalization of the sugarcane grower by the deduction of 0-2-0 per maund from cane price for investment in Savings Certificates. Although the deduction was abolished late in January 1945 it did not exercise any salutary effects except that more cane was taken to mills in preference to Gur-making since the abolition of deduction. The condition of the crop except in Bihar and Bengal was reported to be generally good. Abnormal labour costs and shortages of various kinds also influenced production of sugar by mills somewhat adversely this year. The rather loose working of Gur Control Order in the beginning of the current season was also responsible in drawing cane from factories to gur-making to certain extent and partly accounted for the lower factory production.

The number of factories reported to be working was only 142 against 151 in the season 1943-44 and the distribution except in Bengal was almost the same. In U.P., Bihar, the Punjab, Sind and N.-W.F. the number of

factories was 70, 68, 31, 29 and 2 respectively this year. In Bengal there was a reduction to 4 this year 5 from 6 in the last season. In Bombay, Madras and Indian States, the figures were the same as last year, viz. 12, 10 and 18 respectively. In Orissa there was only 1 mill working against 2 last year.

Many factories in U.P. and Bihar closed by the end of April 1945, and the rest by the end of May 1945. On the whole the season was shorter than the previous year and the quantity of cane crushed by mills was estimated to be about 9,533,400 tons as against the actual crush of 12,137,800 tons recorded during the last season. The recovery percentage which stood at 10.31, showed slight increase compared with the 1943-44 season. Thus the results point to one fact, viz. lower production of factory sugar for the current season.

But this need not alarm anyone as the coming season is likely to be one wherein every effort for maximum production will be made. The war has happily ended this year and export markets have been opened. There seems to be a wider scope of demand for Indian sugar and the authorities will do well to keep in mind this important fact and leave no stone unturned to assist the industry in every way to increase output of white sugar. There is reason to believe that the Government is also serious about it, as the convening of a special Conference for Maximisation of Sugar output in February 1945, referred to in the earlier portion "At a glance" will show.

Sulphur Supplies and Sugar Production

The problem of securing adequate supplies of sulphur has naturally been causing considerable anxiety to the sugar mills for the last three or more years. The acute shipping situation has resulted in the curtailment of sulphur supplies and factories were advised to make as economical an use of stores and chemicals as possible, consistent with the maintenance of proper efficiency at the plants. For this purpose factories were asked to seek the help of the chemical experts of the Imperial Institute of Sugar Technology to enable them to economise the use of sulphur at the mills. Mills were also asked to state their minimum requirements of sulphur long before the season, so as to make it available to them in time.

The working of the last two years has, however, proved that it is impossible to maintain efficiency with a frugal or miserly policy in regard to supply of stores and sulphur. It was believed that the problem of sulphur supplies had been satisfactorily solved and that considerable ore reserves had been found in Baluchistan. But the lack of proper arrangements at the mills for refining the crude Baluchistan ore and the low percentage content of sulphur in the ore have belied hopes.

The supplies of sulphur in the crude form naturally gave rise to considerable difficulties to sugar factories. Sulphur had to be refined and very few factories had facilities for using sulphur ore direct by refining it at the mill itself. Equipment at some of the factories had to be altered but even then there was no satisfaction. The main task of refining and supplying sulphur from Baluchistan ore was entrusted to Messrs Sepulchre & Co., who maintained a refining plant at Delhi. But the difficulties of the factories in getting adequate quantities of pure sulphur persisted during 1943-44 season.

Towards the end of 1943, the Food Department of the Government advised factories to reduce consumption of sulphur from 0.04 per cent to 0.035 per cent, thus affecting economy in its use. If factories found it difficult to reduce their consumption to this level they were advised to seek the assistance of the Director, Imperial Institute of Sugar Technology, Cawnpore.

With the reduction in the allotment of quantities of sulphur, factories were naturally anxious to make sure that the ore supplied to them was of a certain assured sulphur content, as it was found that there had been a reduction in the recovery from 25 per cent to 15 per cent. This naturally placed many factories at a disadvantage. The difficulties in getting sufficient quantities of ore, the uncertain nature of the sulphur content and the deterioration in the quality of sugar have led to many representations by sugar factories that refined sulphur should be imported from America and Sicily for the next season, i.e. for 1945-46. Since the war in Europe has come to an end this year in May 1945, it is very likely that the Government of India will make every effort to import sulphur in adequate quantities and of good quality from Sicily and thus relieve the anxiety of the factories in the matter of sulphur supplies. Let us hope that the Government will attend to this matter in time and make adequate sulphur supplies available for mills for the coming season.

Lime and Fuel Supplies to Sugar Mills

Lime is used as a chemical in juice clarification in sugar factories. The consumption of quick lime in clarification using sulphitation works out to about five pounds of lime per ton of cane crushed. Taking 90,00,000 tons as the average amount of cane crushed in sulphitation factories, the approximate total amount of lime required comes to about 20,000 tons. The value of this, if it were cent per cent pure, at the rate of Rs. 25 per ton, would work out to about Rs. 5 lakhs.

During the season 1943-44 the sugar factories in U.P., Bihar, Bengal and Madras experienced considerable difficulties in securing their requirements of limestone for producing sugar. The quality of limestone is very important and as such limestone has got to be transported over distances. Efforts were made to get limestone from Jubbulpore and Katni areas in Central India and from Rajputana. Transport of lime became a difficult problem and frequently mills found it impossible to secure the necessary priorities. After numerous representations the Chief Controller of Railway Priorities, New Delhi, promised to look into the matter and make movement of lime to sugar mills more orderly and satisfactory. The request of the Indian Sugar Mills Association for putting limestone in the list of Class I priority, although turned down, produced beneficial reaction and the Regional Controllers of Railway Priorities were asked to grant temporary special assistance in case of essential movements to individual sugar mills.

The fire-wood and fuel position also became acute towards the end of the season 1942-43. Mills experienced difficulties of various kinds in procuring minimum requirements of fire-wood. Although bagasse is being used partly as fire-wood, many mills could not get on without fuel-wood. The prices of wood which was Rs. 18 to Rs. 24 per ton before the war, gradually went up as high as Rs. 75 to Rs. 80 per ton in U.P. Towards the end of the season 1942-43 mills in U.P. made an appeal to the Govern-

ment expressing concern over the fuel-wood position. The U.P. Government made some concessions to the mills for procuring fire-wood from forest reserved areas near Dehra Dun by a regulated process at fair prices. This resulted in some relief on account of fuel.

In 1943 and 1944 the coal and fuel position in all provinces became generally one of acute shortage and the Government of India had to intervene in the matter of fuel-wood for sugar mills. The Food Department of Government of India made allotments to the various mills after ascertaining their requirements for the off-season and the coming season. The allotment system is now continuing as the position has not yet improved so far. For the season 1945-46, the Government of India announced that pending supply of full details as regards the requirements of the mills and the final allotment of fuel thereto, a quota of 50 tons of fire-wood to each sugar factory would be made to cover the immediate requirements. Arrangement has also been made for an adequate supply of coal to factories for 1944-45.

Working of the Sugar Control Order in 1943-44

The working of the Sugar Control Order on the whole had been satisfactory in the above season although there were complaints voiced here and there by trade associations and individuals. The elimination of mistakes and cumbersome official red-tape methods facilitated generally the working and enforcement of orders although excessive zeal has been shown by some local officials in the enforcement of regulations. Thanks to the sympathetic and ready response of the Sugar Controller of India, many complaints were redressed on proper representation of the trade through the two associations. Mr. N. C. Mehta, the first Sugar Controller, (on whose ability and eagerness to help the industry forward through thick and thin, we had the occasion to comment on in previous *Annals*) was succeeded in 1944 by Mr. Vishnu Sahay, who possesses plenty of grit and first-hand knowledge of sugar conditions by his work in U.P., as Cane Commissioner for several years.

The Sugar and Sugar Products Control Order, 1943 came into force and it was in many ways very comprehensive. Control over all aspects of the sugar industry was established and a process of centralisation and co-ordination between the various controlling authorities was evolved in course of time. Prices of sugar and sugarcane were also fixed and announced earlier to enable the industry to put forth its best effort. The problem of disorganised transport which was the chief complaint in 1942-43 was solved to some extent and wagons were allotted with greater regularity to the sugar mills. The transport of sugar from mills to consuming centres was also made easier and quicker as the Sugar Controller assumed full responsibility for it. Likewise in distribution also quotas were fixed for each area and transport was arranged fairly satisfactory. Above all, the working of the Sugar Control Order and its enforcement in U.P. contributed largely to the success of the season's sugar production.

Alluding to the working of controls during 1943-44 season, Mr. Lalchand Hirachand, retiring president of the Indian Sugar Mills Association in his speech on 16th September 1944, observed as follows:—

“The drive on the ‘Indian Sugar Front’ has been a success. The production of factory sugar which in the year 1942-43 was only 10.7 lakhs

tons had gone upto 12½ lakhs tons in the year 1943-44. To achieve this the Sugar Controller was armed with the additional 'V' weapon, namely, the Gur Control Order. The increased production of sugar in the year 1943-44 has roused in me a mixed feeling of joy and unhappiness. I feel happy, because the actual production has gone up to such a high figure and has created a new record at a time when sugar is in great demand. I feel unhappy, because the methods that were employed for obtaining higher production were like all 'V' weapons very destructive in their nature. Here I refer, particularly, to the enforcement of the Gur Control Order under which the movement and transport of gur were strictly controlled in U.P. which is the biggest producer of gur."

The effective control of gur and the check in the diversion of sugarcane for the manufacture of gur were achieved by the Gur Control Order. Towards the end of the season, surplus gur from U.P. and Bihar was also brought under quota and allotment system by the Gur Controller and transport for gur was provided accordingly on licenses issued for export. The inter-district ban on transport of gur was also withdrawn.

Sugar Prices increased in 1944

The decision of the Government of India on sugar prices for the 1944-45 season were announced by a notification on 21st October 1944 by the Sugar Controller for India under the Sugar and Sugar Products Control Order, 1943. The press note issued on the subject pointed out that the Government of India increased the price of white sugar by Rs. 1-7-0 and the khandsari price by Re. 1 per maund for the season 1944-45. At the same time an ordinance was promulgated to raise the temporary excise duty on sugar from 0-13-0 to Rs. 1-7-0 on all stocks of sugar held by the factories and dealers on that date, and thus the Government obtained revenue, which would have unjustifiably gone to the holders of old season's sugar.

The increase in the ex-factory price of sugar was intended to enable the Provincial Governments to fix a higher minimum cane price during the ensuing season. Whatever increase in the price of sugar was made for the season was taken away by the higher cane prices in the U.P. and Bihar. The Provincial Governments of Bihar and U.P., as mentioned above, increased the prices of sugarcane by two annas from As. 12 to As. 14 per maund.

Comments on Sugar and Sugarcane Prices for 1944-45

The increase in sugar prices was practically offset by the increase in cane prices by 0-2-0 per maund. That apart, the prices of sugar and sugarcane announced by the Government of India and the Provincial Governments did not satisfy either the trade or the growers. Both were disappointed at the low prices and meagre margin of profits left to them.

Commenting on the increase of Rs. 1-7-0 per maund in sugar, Lala Gurusharan Lal, President of Indian Sugar Mills Association, said that the increase of Rs. 1-7-0 per maund was far below the expectation of the industry which had asked for an increase of Rs. 1-13-0 per maund. He complained that the present increase was hardly sufficient to cover the increase of 0-2-0 per maund in the cane prices and that of three pies in the co-operative societies commission in U.P. and Bihar, increased labour charges, higher prices of coal and other mill stores and the general increase

in the cost of production owing to short season. He opined that unless the Government granted a further increase of 0-6-0 in the sugar prices most of the mills would be put to serious losses during the ensuing season. He also added that there was no justification for the continuance of the cess of 0-1-0 per maund on sugarcane in view of the fact that the Central Excise Loan was fully paid-up.

Commenting on the increase in sugar prices, Mr. M. P. Gandhi, Editor of the *Indian Sugar Industry Annual* in a statement to the press, said as follows :—

“The present increase of Rs. 1-7-0 a maund in the price of sugar will warrant an increase of only two annas a maund in the price of cane (roughly 10 maunds on cane being required for producing one maund of sugar), and the balance of three annas has been allowed to the industry to offset the increased manufacturing charges, consequent on increase in prices of coal, sulphur and various other ingredients. The industry should feel thankful for the small mercy.

“But a price of 0-14-0 annas per maund of cane, as against 0-12-0 last season in the U.P. and Bihar would neither be an adequate compensation to the cultivator, whose cost of living has increased considerably, nor afford him the incentive for keeping to the cane crop as against alternative food crops. The cultivators’ interests have, therefore, not been given a fair consideration, and, consequently, also the larger interests of the industry.

“The growers representatives also were disappointed at the low prices and insisted on the abolition of compulsory deductions on sugarcane. Even with the alteration made in Bihar in increasing the minimum price to 0-15-0 per maund without any deduction and the complete abolition of deductions in U.P., there is little reason to think that the minimum prices are fair and remunerative to cultivators of sugarcane. In the larger interests of the industry, we hope, that this aspect of minimum sugarcane prices will receive the attention of the Government and the industry at least for the coming season of 1945-46.”

Temporary Excise Duty Ordinance, 1944

The Sugar (Temporary Excise Duty) Ordinance, 1944, to impose a temporary duty of excise on sugar produced in British India at the rate of Rs. 1-7-0 per maund on factory sugar and Re. 1 on Khandsari sugar, was published in the *Gazette of India* Extraordinary dated 21st October 1944.

Section 3 of the Ordinance provided for the levy of an excise duty of Rs. 1-7-0 on all factory made sugar and Re. 1 on Khandsari sugar per maund. Section 4 of the Ordinance laid down that every person owning or possessing sugar liable to the duty shall submit to the Assessing Officer a full account in writing within seven days of all sugar in his ownership or possession together with full details. The object of the Ordinance was to collect excise duty on the old stocks held by mills or wholesale dealers at the increased rate of Rs. 1-7-0 per maund which was also the increased price of sugar for the new season. It was a counter-measure not to allow mills or dealers to profit unduly by this increase. The amount went into Government coffers. The Ordinance came into effect immediately.

Schedule of Sugar Prices for 1944-45

The schedule of sugar prices, ex-factory controlled rates announced by the Sugar Controller for India, on 21st October 1941, has been given in the *Sugar Industry at a Glance*. There is a uniform rise of Rs. 1-7-0 per maund in the prices of factory sugar compared with the last season. The various ex-factory prices have been fixed on the basis of the Sugar Standards prescribed by the Bureau of Sugar Standards for the different grades. Sugar of D. 24 quality is reckoned as the standard grade and other grades are priced according to the difference in quality from D. 24. Sugar of D. 24 quality is fixed at Rs. 16-4-0 per maund in the 1944-45 season.

Bihar and U.P. Control Acts Extended upto 1947

The life of the Bihar and U.P. Control Acts was extended for a further period of three years. The Governor gave his assent to the U.P. Sugar Factories Control (Amendment) Act, 1944 which, *inter alia*, provided for the continuation of the Sugar Control Act of 1938 till the end of June 1947. The two Governments also set up Sugarcane Varieties Advisory Committees to continue the work of improving the quality of sugarcane crop sown. The question of cane development is very important in India because of the low recovery percentages and the higher costs of production. The setting up of the Sugarcane Varieties Advisory Committees in U.P. and Bihar for increasing the yield of cane per acre is a step in the right direction.

Technical Committee Set Up in U.P. to Help Factories

By an amendment to the United Provinces Sugar Factories Control Rules, 1938, the U. P. Rural Development (Cane) Department under a notification dated 28th November 1944, announced the setting up of a Technical Committee to help and assist the factories with advice on all technical problems. The Technical Committee is to consist of six members of which the Director, Imperial Institute of Sugar Technology, Cawnpore, and the Cane Commissioner, U.P. shall be *ex-officio* members of the Committee. The remaining four members are to be nominated by the Governor and shall include at least three representatives of the Indian Sugar Syndicate Ltd. The Technical Inspector appointed under Rule 51A, shall act as the Secretary of the Committee and the Chairman of the Committee is to be nominated by the Government.

The main functions of the Committee were defined by Section (6) which says:—

(6) The functions of the Committee shall be to advise the Provincial Government with regard to—

- (a) the establishment of new sugar factories in the Province;
- (b) the additions or alterations in the existing plants of sugar factories in the province;
- (c) determination of the crushing capacities of the existing sugar factories in the province;
- (d) additions or alterations carried out by a factory in contravention of the provisions of Section 9 of the Act; and
- (e) other technical and incidental matters connected with these functions as may, from time to time, be referred to it by the Sugar Commissioner or the Provincial Government.

Rules framed under the Act were to govern the procedure for meetings of the Technical Committee set up above. The establishment of the Technical Committee is a welcome sign of the interest that the U.P. Government has been evincing in conserving and developing the sugar industry on right lines in that province. Technical advice on various matters is required by the mills and also the authorities for the purposes of post-war planning. How far this higher aim can be achieved by the Technical Committee set up in U.P. will lie in the womb of future but as a measure forward it is a step in the right direction. It will not be too much to hope that Bihar will also follow in the footsteps of U.P. in this matter.

Extensions to Sugar Factory Plants in U. P.

The U.P. Government issued a Press Note on this subject on 11th July 1945: "The U.P. Government have decided to permit the existing sugar factories in the province which have at present a crushing capacity of less than 800 tons per day to raise their crushing capacity to that level. These factories will also be allowed an increase in rollers subject to a maximum in the mill of 17 with a view to ensuring more efficiency and economy. The sugar factories availing of these facilities will have to fulfil two conditions. They have to ensure that the required quantity of cane is available within the existing home zones of respective sugar factories or can be produced in these zones by intensifying the cultivation and that the existing plants are so balanced that they can be extended to the level of an economic unit of 800 tons per day".

From the point of view of increase of efficiency, this step is, doubtless, commendable. It is, however, a moot point whether it would be desirable to develop further sugar-producing capacity in U.P. (and Bihar), or to let other areas which are today backward in this respect, develop their production, out of regard for a well-regulated dispersal of industry over all Provinces, where the industry is capable of establishment. We have consistently suggested that further development of the industry, at the present stage, and under the present circumstances, should be planned principally outside U.P. and Bihar which are greatly congested. We recommend an All-India Planning in the matter of establishment of further capacity of production of sugar.

Sugarcane Survey for India Completed in 1945

The need for a comprehensive survey of Indian Sugar Industry is never more urgent than to-day when the post-war plans for every industry are now on the anvil. Sir T. S. Venkataraman, formerly of the Imperial Sugarcane Research Station, Coimbatore, was conducting a comprehensive survey on behalf of the Imperial Council of Agricultural Research but had to give up the work owing to ill-health. The work was undertaken by Mr. N. L. Dutt, Director of Imperial Sugarcane Research Station, Coimbatore. It is reported that the investigation has been finished and that Mr. N. L. Dutt has submitted his Report to the Government of India, detailing the various measures to be taken for improving cultivation of sugarcane in India. We hope that the Report will be published before long and that Government will make every endeavour to implement its main recommendations at an early date.

Transport Difficulties in U.P. and Bihar

Although there was strain on transport facilities by rail and shortage of wagons, on the whole the season 1943-44 did not experience difficulties so far as the sugar transport is concerned. Loading and unloading of cane was quick and sugar factories were able to transport cane to factories with much delay.

But the 1944-45 season for cane crushing by mills was one of considerable difficulties for transport. At the beginning of the season factories on the O. & T. Railway were informed that there would be considerable restrictions in the allotment of wagons for cane transport. Wagon supplies were restricted to one-third and loading of cane by rail from stations beyond 25 miles and within a radius of 10 miles was prohibited. This caused considerable difficulties for factories. The difficulty on account of wagons was evident from the fact that factories were asked to finish loading and unloading within 6 hours compared with 9 hours in the previous year and 24 hours before. Longer detention by factories was threatened with demurrage. The representations of the factories to extend the hours to nine did not meet with success except that promise was given to look into individual cases of reasonable delay. Thus transport presented great difficulties to the mills in 1944-45 season and many factories in U.P. and Bihar lost continuous crush. For lack of transport, cane was left in the fields and constituted a loss for more sugar production. As factories were for long dependent upon rail-borne cane it became difficult to switch off from rail transport to other means of transport. Lack of proper roads and the paucity of tyres and petrol proved as obstacles for lorry transport and other arrangements even if some mills wished to explore those sources. Thus transport problem throughout the season 1944-45 caused difficulties to mills and was responsible as a factor for low output of sugar.

It may be hoped that the authorities will try to rectify the transport deficiency in the coming season and take all precautions to provide sufficient number of wagons for the transport of cane to the mills. The invidious regulation regarding restrictions over 25 miles and within 10 miles stations must be removed and mills should be in a position to get their supplies by rail irrespective of the distance in the interests of cultivators and a larger crush.

Central Sugarcane Committee Formed in June 1944

The establishment of the Central Sugarcane Committee to promote and safeguard the interests of the future of Sugar Industry is a step in the right direction and comes none too soon as the industrialists and other sugar interests have been urging for it long since. The Government of India's Draft Resolution on the subject intimating the proposal to set up the Central Sugarcane Committee, on the lines of the Indian Central Cotton Committee and the Indian Jute Committee, was circulated among the various sugar interests in the country in December 1943 to elicit their opinions and suggestions. The text of the draft resolution is given in *Sugar Industry at a Glance* in last year's *Annual*. (See *Sugar Industry Annual* 1943.)

Under a notification dated the 6th June 1944, issued by the Government of India, Department of Education, Health and Lands, New Delhi, it was

announced that the Government of India accepted the draft resolution and the recommendation to set up the Central Sugarcane Committee to be a body corporate registered as a Society under the Registration of Societies Act, 1860. (For the text of the approved resolution of the Government see *Sugar Industry at a Glance*.)

The formation of the Central Sugarcane Committee with the Central Sugar Advisory Board will facilitate a more vigorous policy being pursued by the Government towards the industry and give it adequate attention from an all-India angle. In view of the growing importance of the Indian Sugar Industry and the need for reduction in costs of production, especially of cane, it is expected that the Central Sugarcane Committee will formulate a plan for conducting vigorous research in the growth of better varieties having larger sucrose content and giving higher yield of cane per acre as well as better recovery percentages.

Functions of the Indian Central Sugarcane Committee, 1944

The functions of the Sugarcane Committee as stated in the final Resolution of the Government of India, dated 6th June, 1944, are as follows :—

“The functions of the Indian Central Sugarcane Committee will be to undertake the improvement and development of the growing, marketing and manufacture of sugarcane and its products in India and of all matters incidental thereto. This includes items such as agricultural, technological and economic research on sugarcane, gur and sugar and their bye-products, the improvement of crop forecasting and statistics, the production, distribution and testing of improved varieties, the adoption of improved cultural practice, enquiries and recommendations relating to banking and transport facilities and transport routes, the maintenance of an Institute of Sugar Technology and other similar matters. The control over the Institute of Sugar Technology will vest in the Committee along the lines indicated in the resolution. The Committee will also advise the Central and Provincial Governments concerned on any points which may be referred to them, provided the subject matter of the reference falls within the prescribed functions of the Committee.”

In order to provide a fair representation to manufacturers, growers, traders and consumers, the body was constituted of nearly 45 members. Of the total number of members, 16 were given to officials of the Central and Provincial and State Governments who were to be represented by their officers. Of the rest of seats, 10 were allotted to Sugar mills, 4 to Gur and Khandsari industry, 8 to non-official representatives of agricultural interests, 3 to the Sugar Trade, 1 to Sugar Technologists and 3 to consumers' representatives. (See *Sugar Industry at a Glance*.)

It was also proposed that the Committee would undertake the maintenance of the Imperial Institute of Sugar Technology both as a teaching and research institution and be responsible for the improvement in sugar standards. Returns under the Sugar Production Rules, the maintenance of sugar trade information services and any special work that may be required by the Central or by any Provincial Government would be directly under the control of the Director of the Imperial Institute of Sugar Techno-

logy who would be appointed by the Government of India and continue to be a Government servant.

Finances of the Central Sugarcane Committee

The Government of India will finance the Committee by placing at its disposal the entire proceeds of the Sugar Excise Fund; the amount so credited shall continue to be one anna per cwt. of white sugar produced in British India out of the excise duty levied on it. The question of increasing the amount will be considered after the war. If the amount placed in the Fund in any year falls short of the needs of the Committee, the Government of India will automatically grant a loan free of interest to cover the deficit and enable the Committee to incur expenditure upto a limit of Rs. 11.75 lakhs in the year subject to the condition that the first charge on any surplus occurring thereafter will be the repayment of this loan. The Committee will meet all the present liabilities of the Fund and take over all its assets.

Inaugural Meeting of the Central Sugarcane Committee

The inaugural session of the Indian Central Sugarcane Committee was held at New Delhi on November 29th and 30th 1944. Sir Jogendra Singh, Member-in-Charge of Lands, Education and Health Department performed the inaugural ceremony. The meeting constituted a number of sub-committees, one each to deal with Technology, Agricultural Research, a Committee of Experts, a Sugar Standards Committee and a Gur and Khandsari Committee. All these were advisory bodies to the main Committee, viz. the Finance Committee. The Finance Committee which was also constituted at the same time would be the main Executive Committee and possess all the powers of the full Committee. The headquarters of the Committee were to be at Delhi and the Vice-Chairman, Imperial Council of Agricultural Research, as mentioned in the Government's resolution, was to act as *ex-officio* President of the Committee. Lala Shankar Lal was elected as the first Vice-President. The meeting approved the Memorandum and Articles of Association for the registration of the Committee. (For the names of the members of the Central Sugarcane Committee see *Sugar Industry at a Glance*).

Sir Jogendra Singh in his speech dealt with the importance of the sugar industry in the national economy and laid stress on the duties and responsibilities of the members in the discharge of the work entailed on them. Concluding his speech, he hoped that the Committee would do its utmost in promoting the interests of sugarcane and sugar in the future by the application of science and modern research in breeding improved varieties of cane.

Comments on Composition of the Central Sugarcane Committee

On the strength and personnel of the Central Sugarcane Committee constituted by the Government, a number of criticisms were made in the press. We would only refer to a few of them here. It was pointed out that the Committee was large and unwieldy in size with a membership of 45. It was also pointed out that a smaller body would be better able to handle the practical problems and come to decisions quickly and easily. Since the main objective of the Committee was not merely to discuss and debate

but to formulate plans, it would be in the fitness of things to have a smaller body. Secondly, it was considered that official representation in the Committee was far too much and over weighted and consequently non-official quota suffered reduction. Thirdly, the invidious position of the Director of Imperial Sugar Technology, owning divided loyalty to two authorities and serving under two masters received adverse comment.

There is certainly sound argument in some of the above criticisms. For ourselves we share the view of the first two criticisms, viz. the unusually large size of the Sugarcane Committee and the small representation given to non-official sugar interests and particularly consumers of sugar and agricultural interests. We fully endorse the view that a smaller and more compact body would certainly be more congenial for work and quick decisions. In any case it would not degenerate into a debating and discursive body, as larger bodies are always likely to be. As regards the position of the Director of the Imperial Institute of Sugar Technology, which is a very key and important post for the sugar industry, we are not afraid of the argument of divided loyalty and do not consider his appointment by Government in any way injurious.

In February 1945, a second meeting of the Central Sugarcane Committee was held at Delhi. A Planning Sub-Committee to consider and make recommendations on the part which sugarcane production should play in the future economy both of the country as a whole and of the various sugarcane-growing Provinces and States was appointed under the chairmanship of Mr. H. R. Stewart, Vice-Chairman of the Imperial Council of Agricultural Research. The Sub-Committee was asked to submit its report at the next meeting of the Indian Central Sugarcane Committee. Several matters having an important bearing on the future of the sugarcane and sugar industry were discussed at the meeting. The levy of a cess on sugarcane supplied to factories in Provinces and States, where such a cess did not exist already, was strongly recommended by the Sugarcane Committee, its full proceeds to be utilized for the improvement and development of the cane and other connected purposes, including the improvements of roads leading to sugar factories. It was also resolved that the cane-growing Indian States should be asked to contribute to the funds of the Indian Central Sugarcane Committee which derived its finances at present entirely from the excise duty on sugar manufactured in British India. A technical Sub-Committee was set up to examine the present programme of work at the Imperial Institute of Sugar Technology and to make recommendations in regard to the lines along which the Institute could best serve the needs of the sugar manufacturing industry.

Estimated Production of Sugar in Season 1944-45

The working of the mills and production of sugar during the current season of 1944-45 has already been referred to above in connection with cane prices and comments thereon. The second Memorandum on the production of sugar by mills was published in the *Indian Trade Journal* in June 1945. According to the estimate of the Director of the Imperial Institute of Sugar Technology, the total output by mills will be round about 9,85,100 tons. It is

estimated by him that there will be a drop in U. P. output, while in Bihar and Indian States also there will be a decrease due to lack of cane supplies in adequate quantities.

A comparative study of the actual output during 1943-44 and the estimates for current season of 1944-45 will clearly bring out the position and prospects of sugar industry now. The comparative figures are given below :—

Province.	Cane Crushed. 1943-44		Sugar Produced. 1943-44		Cane Crushed. 1944-45.		Sugar made. 1944-45.	
	(Actual results of the Season.)				(Estimates for Season.)			
		Tons.		Tons.		Tons.		Tons.
1. United Provinces	...	7,332,400		727,000		6,213,487		533,500
2. Bihar	...	2,018,400		212,400		1,607,713		170,600
3. Punjab, Sind & N. W. F. P.	...	174,200		17,400		168,993		12,300
4. Madras	...	420,400		39,200		575,231		53,300
5. Bombay	...	739,700		81,200		787,975		76,300
6. Bengal	...	175,900		13,600		184,251		12,000
7. Orissa	...	17,600		1,700		25,308		2,600
8. Indian States	...	1,259,200		123,800		575,231		124,500
Total.	...	12,137,800		1,216,400		10,138,189		985,100

Production in U. P., as can be seen from the above figures will be less by about two lakhs of tons compared with the last year's. In Bihar and Bengal and Bombay also there is a decrease; and the Indian States have produced nearly the same quantity. In Orissa there will be small increases according to the estimate. In Madras there will be better production of sugar compared with the previous season. As the crushing season is expected to last longer in Madras, the actual production may register a small increase, over the estimation.

Area under Sugarcane in 1944-45

The total area under sugarcane in the current season of 1944-45 is estimated at 4,134,000 acres as against 4,234,000 acres during 1943-44. The total estimate of the yield of raw sugar (gur) is 54,22,000 tons as against 58,48,000 tons last year. (*Vide* Final General Memorandum on the Sugarcane Crop of 1944-45, published in the *Indian Trade Journal* dated 9th August, 1945.)

The final estimate of the sugarcane crop for 1944-45 based on calculations upto 25th April, 1945, published in the *Indian Trade Journal* dated 9th August, 1945, gives the details of acreage as below :—

Second Crop Forecast for 1944-45 for Sugar

Provinces and States.						1944-45 (Thousands)	1943-44 of acres)
U. P. (including Rampur State.)	...	...	...	...	...	2,201	2,114
Punjab	...	...	...	...	...	602	495
Bihar	...	...	...	...	...	362	421
Bengal	...	...	...	...	...	310	338
Bombay (including Indian States.)	...	...	...	...	...	166	162
Madras	...	...	...	...	...	156	138
N.-W. F. P.	...	...	...	...	...	96	83
Assam	...	...	...	...	...	49	43
Orissa	...	...	...	...	...	34	33
C. P. & Berar	...	...	...	...	...	32	29
Sind (including Khairpur State)	...	...	...	...	...	5	6
Delhi	...	...	...	...	...	3	2
Mysore	...	...	...	...	...	44	38
Hyderabad	...	...	...	...	...	60	53
Bhopal (C. I.)	...	...	...	...	...	7	7
Baroda	...	...	...	...	...	5	4
Jaora (Central India.)	...	...	...	...	...	2	1
Total.						4,134	3,967

In addition to the area for which particulars are given above, the crop is grown on a small scale in certain other tracts in India, the average area of which on the basis of the last quinquennial figures is roughly 35,000 acres which does not come into the above calculation.

The average percentage of sugarcane area in the various tracts to the total area under sugarcane in India based on the figures for the five years ending 1942-43 is as below :—

U.P. 50.8 per cent; the Punjab 11.5 per cent; Bihar 10.9 per cent; Bengal 8.1 per cent; Bombay 3.8 per cent; Madras 3.3 per cent.

In the table below is given the area under sugarcane, under improved varieties, and production of cane per acre, gross production of gur, and calculated production of cane crop from 1930-31 to 1944-45:

Year.	Total acreage (1,000's acres.)	Acreage under improved varieties (Thousands of acres)	Average cane production per acre. Tons.	Gross production expressed as gur. (Thousands of tons.)
1930-31	2,905	817	12.3	3,359
1931-32	3,076	1,170	14.1	4,116
1932-33	3,424	1,845	14.9	4,859
1933-34	3,422	2,295	15.3	5,055
1934-35	3,602	2,433	15.1	5,292
1935-36	4,154	3,056	15.3	6,102
1936-37	4,582	3,452	15.6	6,932
1937-38	3,869	2,968	15.5	5,579
1938-39	3,130	2,673	15.0	3,572
1939-40	3,640	2,893	15.0	4,748
1940-41	4,598	3,480	15.0	4,794
1941-42	3,515	2,773	15.0	4,371
1942-43	3,590	.....	15.0	5,076
1943-44	4,234	.....	15.0	5,848
1944-45	4,134 (Estm.)	.....	15.0	5,848 (Estm.)

Gur Control Order, 1943 and Its Working in 1943-44 and 1944-45

In pursuance of the policy of maximisation of sugar output and the consequent need to ensure adequate supplies of sugarcane at the minimum price fixed by the Provincial Governments of U.P. and Bihar it was found necessary to discourage the output of gur and regulate its production and movement. With this object in view the Gur Control Order was passed to regulate the prices and production of gur. The decision to regulate prices and distribution of gur was arrived at by the Food Conference held in New Delhi early in 1943 and the Order was accordingly promulgated on 24th July 1943, in the background of the conditions described above.

The Order is a very comprehensive one and later on amendments have been made from time to time to correct the defects noticed in the working of the Order. Under it a Gur Controller for India who is also the Sugar Controller has been appointed with the following powers :—

- (1) To fix maximum prices for gur in any specified area ;
- (2) To prohibit or restrict cane movement from any particular area ;
- (3) To direct cane growers in that area to deliver cane (a) to a particular sugar factory, (b) in such quantity, (c) at such prices, and (d) at such times as may be specified by Controller.
- (4) To prohibit or restrict manufacture or gur ;
- (5) To issue gur quotas to provinces or areas and direct producers and dealers to deliver the same, and
- (6) To prohibit gur movement and transport.

From the comprehensive nature of the powers given by the Order it will be clear that the authorities are anxious to afford all facilities to mills for increasing the output of sugar. It will also be clear that the authorities are equally anxious to control prices and arrange movement in an orderly manner and relieve the strain on transport. A larger production of gur would necessarily mean delay in the allotment of wagons to factories as gur being a perishable commodity will have to be accorded priority. Another important consideration is that there should not be any great diversion of demand for sugar from consumers of gur. The consumption of gur in India in rural areas is very great amounting to nearly three times that of sugar. Unnecessary restriction either on the movement or production of gur will cause hardships for the poor and at the same time create more demand for sugar. Owing to the relative cheapness of sugar there has been within recent years greater demand for sugar and this will make the problem of exports and the elimination of "black markets" difficult.

The prohibition of the manufacture of gur within a certain area from the factories and the direction of supplies of cane to particular factories are intended to help mills in getting cane supplies and are therefore in favour of the mills. A ban was imposed on the movement of gur either by rail, land or river except under a permit obtained from the Gur Controller to that effect.

The Gur Control Order mainly affected the surplus producing areas, namely, the U.P., Bihar and Madras. All other areas were deficit areas which would have to import gur to meet the internal requirements. Even though the Punjab is an important producer of gur, it imports nearly 5 lakh tons of gur from the N.-W.F.P. and the U.P.

An announcement issued by the Government of India in October 1943 made it clear that exports on private account were banned and that Government had taken the monopoly of inter-provincial trade. The scheme of the Government while banning exports on private account contemplated allotments of periodical quotas from the surplus areas to deficit areas. On November 12, 1943, a press note was issued by the Government of India explaining that no private exports of gur were allowed from one province to another. Gur was to be exported only by the Governments of the surplus areas to the Governments of the deficit areas or to their accredited representatives in accordance with the instructions of the Gur Controller for India, who would allot periodical quotas for the export of specific quantities from each surplus area to each deficit area.

While the aim of the Gur Control Order was certainly laudable as it was the first and important measure designed to help the producers in preference to gur-manufacturers and ryots, there was general apprehension that the strict enforcement of the Order would affect adversely sugarcane crop and acreage. At first Government was unable to maintain price of gur at Rs. 8 per maund the controlled ceiling price.

The licensing of agents and dealers, the control of movements, the grant of permits, the allotments of quotas and the monopoly of inter-provincial trade naturally created difficulties. The new methods gave rise to good deal of confusion in working. Transport which was the main bottleneck presented difficulties. With the ban on free movements of gur and the lack of adequate transport facilities, there was a glut in the markets in U. P. and prices came down to Rs. 6-8-0. Large stocks had accumulated at the markets for lack of transport. The indiscriminate control of gur in areas where factories were not situated and the decline in prices to below the rate fixed by the Government was the subject of considerable criticism. It was widely feared that the object of the authorities in maintaining a price ratio between gur and sugar had resulted in great confusion and that the total output of gur and sugar would be affected.

Some other defects in the working of the Gur Control Order in its early stages were also noticeable. While there was a scarcity of gur in other parts of the country, large stocks of gur were accumulating in U. P. and Bihar. In the quota arrangements also there were loopholes. The Punjab used to get its requirements from N.-W. F. P. and U. P. For some reasons the N.-W. F. P. was not able to control its price of gur and actually the price was Rs. 14 per maund. The Punjab Government naturally wanted to buy its requirements from U. P. at a lower price. The N.-W. F. P. eventually permitted private exporters to send out gur at price much higher than the controlled rate to Sind which was also a deficit province. Another important point was the prevention of "black markets" and profiteering by importing Governments. Gur acquired by the importing Governments was at a price far below the market value in the importing area and the question of proper disposal and elimination of "black markets" meant some difficulty. Smuggling of gur from areas on the borderline presented a great source of profit to the profiteer.

Comments on the Gur Control Order

The Gur Control Order is like a double-edged weapon which should be used very carefully. An over-zealous control exercised over gur might

create troubles for the factories at a later date. Too many restrictions on cane and gur might tempt the peasants to give up cane cultivation altogether and take to other commodities which are more remunerative. In the drive for maximisation of sugar production, gur production should not unduly suffer and be materially affected except perhaps to the extent of the increased production of sugar. By the application of the Order, one may certainly wish for an increase in the production of sugar by enabling mills to have sugarcane in adequate quantities but by the indiscriminate application of the Gur Control Order, there should not be an increase in sugar output at the cost of gur production. The consumption of gur in India is very large and almost three times that of sugar. Gur is mostly consumed in the place of sugar in rural areas. So the ratios of 3 : 1 between gur and sugar may well have to be maintained even under the Gur Control regime in the interests of the large number of gur consumers in this country. Cane in the gate areas of the factories alone may be discouraged from being converted into gur for the benefit of mills. In outside areas, where no mills are situated, gur production should be allowed. Otherwise, there will be a diversion of sugar consumption in preference to gur consumption in rural areas also. This will create an unduly large demand for sugar and result in complications for the sugar industry. Newer and larger demands for sugar now will only make the operation of Sugar Control Order ineffective and there will be "black markets" in sugar everywhere. Therefore an unduly strict and rigorous enforcement of the Gur Control Order, without gauging its repercussions on the demand for sugar, will only end in chaos in the sugar industry itself and defeat the very object for which the Gur Control Order came into being.

In controlling gur production and prices there are certain factors which should be faced squarely in the working of the Order. The very nature of the commodity, the large number of people who manufacture gur in scattered areas and the enormous quantities produced every year do not make gur easily amenable to control operations. For instance, there cannot be the same leisurely declaration of delivery quotas as in the case of sugar, for gur quickly deteriorates with the onset of the rains. The same condition applies to transport and marketing which should be finished quickly and the stocks of each year must be disposed of that year.

As Mr. Lalchand Hirachand, the outgoing Chairman of the Indian Sugar Mills Association said in his speech, the Gur Control Order is like a 'V' weapon in the hands of the Sugar Controller. It is a double-edged knife which cuts both ways if used improperly. Every caution should have to be taken in putting it into force lest it should turn like a boomerang. "Like all 'V' weapons, its use is also destructive in nature." An improper and indiscriminate application of the Gur Control Order will certainly result in harmful effects both for gur production as well as sugar production in the country.

Working of the Gur Control Order During 1944-45

At the outset of 1944 the prevalence of "black markets" in provinces and places outside U. P. and Bihar, the lack of transport arrangements for gur export and the inter-district ban on movement of gur created a serious crisis in the two gur markets of Meerut and Muzaffarnagar. The ceiling prices for gur were fixed by the Gur Controller at Rs. 8 per maund for 1943-44 season on the basis of a cane price of As. 10 per maund of cane. But the

over-stocked position in the gur markets depressed prices in U. P. exporting centres and the market prices hardly touched the ceiling price any time in U. P. At the same time in places outside U. P. the prices of gur were higher than the ceiling prices fixed by the Gur Controller. For instance, in Bengal, in certain places affected by famine there was good demand for gur as food and it was consumed at as high a price as Rs. 30 per maund. In deficit provinces like Sind, C. P. and Bombay the market prices of gur were much higher than the ceiling price of Rs. 8 ruling in U. P. This disparity in prices encouraged smuggling of gur. Further the importing merchants in other provinces were making larger profits while the gur producer in U. P. and Bihar was obliged to sell his gur at the controlled price of Rs. 8. This state of affairs wherein the producer was not making any margin of profit while the importing merchants were reaping a higher reward dissatisfied the gur interests in U. P. who felt sore at the injustice done to them by control measures. The Gur Controller was unable to prevent the existence of black markets in deficit areas due to the reason that there was almost no control over distribution or prices of gur in other provinces until a very late date when it was introduced.

Prices of gur in U. P. therefore suffered a slump in the summer of 1944. The meagre transport facilities and the irregular and leisurely working of the allotment of quotas accelerated the pace of the accumulation of surplus stocks of gur in the markets and soon there was a glut in the gur markets. The inter-district movement ban proved at first an impediment for transport of gur from the producing centres to the selling markets, thus blocking the new season's gur in U. P. itself. There was a good deal of dissatisfaction over the despatches of gur from the producing areas. The working of the Gur Control Order in the early stages gave rise to a crop of insoluble problems. As a result, prices of gur came as low as Rs. 6 per maund. In the months of June and July 1944, due to the over-stocked position, in the Muzaffarnagar market price of gur sank as low as Rs. 4-8 per maund, the lowest ever touched after the introduction of the Control Order. This created a great stir and the Gur Controller was obliged to turn his attention to (a) provide more wagons for transport of gur before the next cane crushing season commenced, (b) and evolve a scheme of quotas and control of prices of gur in the importing deficit markets and provinces.

The resolution adopted by the Consumers' Council of the All-India Food Conference held at Delhi in July 1944 clearly expressed the anxiety over the gur position and the disturbing effects produced by the working of the Gur Control Order in the first half of 1944. The resolution reads as below :—

“This Committee views with concern that in gur-producing areas good and valuable gur is destroyed by rains and a large area of cane crop is left unharvested and insanitary conditions are produced by the wrong policy adopted by the Government of India. In the opinion of the Committee, gur is a valuable and necessary food, but being perishable, gur should be allowed to be transported to other areas before the monsoon. In future no restrictions against its transport by bullock carts, lorries, etc., should be placed and the movement of gur should be freely allowed. The present glut should be removed as soon as possible to avoid epidemics and further loss to this valuable and useful food.”

Despite the adverse criticisms and the temporary uneasy position created in the gur markets by the operation of Gur Control Order, the authorities

were confident that they would tide over the critical situation and with the provision of transport and fixation of quotas for provinces, the glut would be removed and prices would adjust themselves as a result. The Gur Controller therefore relaxed no provision of the Order as he felt sure of the necessity and the ultimate success of the control measures in averting any price racket and black markets in sugar and gur. To cope with the situation, transport facilities were provided immediately. In the months of June, July, August and September 1944, vigorous efforts were made to move the vast quantities of gur which were lying in the markets. Out of a total export quota of 380 000 tons from U.P., nearly 250,000 tons were exported from the province by rail, road and river. The strenuous efforts made by the Gur Controller and the U.P. Government in arranging quick transport for the gur that had accumulated in 'mandis' reduced the stocks to a large extent and prices began to react slowly to the new conditions in the gur market.

Although enough transport was provided by the Government before the commencement of the 1944-45 crushing season, due to the acute food position and the difficulties involved in the over-production of gur, the U.P. Government felt compelled to restrict the output of gur in the ensuing season. With that view, on the 9th October 1944, the Government issued a press note warning cultivators against the production of gur. The announcement made an appeal to the cultivators to restrict cane sowing and warned them that if they planted an excessive area under cane outside factory zones and a glut in the gur market occurred in 1946, Government would not help them in marketing the same. It expressed the wish that the uneconomic price of gur which prevailed since the opening of the year would lead sugarcane growers outside the factory zones to grow more food crops. Thus a definite measure was taken to discourage over-production of gur in the season 1944-45.

With the revision in prices of cane and sugar announced by the U.P. Government and the Sugar Controller in October 1944 for the coming season of 1944-45, gur ceiling prices were also altered. The ceiling price for the new season gur in U.P. was fixed at Rs. 8-12-0 per maund of standard quality. In Bihar, the ceiling price was fixed at Rs. 8-4-0 to discourage gur production to a larger degree. This price of gur was correlated to a cash cane price of 11 annas per maund. With an assumed recovery of 10 per cent and a cane price at 11 annas, the total cost of raw material would be Rs. 6-14-0. If to this sum a figure of Rs. 1-14-0 for the cost of manufacture of gur and profit were added, the maximum price of Rs. 8-12-0 could be arrived at.

To prevent merchants in the importing deficit provinces from misusing their permits, a new scheme of control over the distribution of gur in all provinces was also evolved by the Gur Controller. The Provincial Governments were asked to fix maximum prices for imported gur and arrange the proper distribution of it in the provinces. Permits for exports were strictly scrutinised and stringent restrictions were introduced to check "black marketing" in permits and prevent constant changing of the names of importing places by merchants.

By a notification dated 29th November 1944, the Gur Controller for India, in consultation with the U.P. Government, fixed a higher export quota of 3,62,000 tons for the province. This quota was to be distributed according to a scheme among the deficit provinces. The export quota of

U. P. for the previous season was 2,99,000 tons out of a total export allocation of 3,80,000 tons made from all the surplus provinces. The increased allocation for 1944-45 was based on the experience gained by the working of the Gur Control Order in the first year. The deficit provinces were asked to give their requirements at the beginning of the season and on this basis export allocations were made to the surplus provinces. Thus the scope for the existence of black markets in deficit provinces was restricted by taking into account the full quotas needed by the areas and by asking the Provincial Governments in each area to undertake the distribution of imported gur at controlled prices. Thus a more scientific and orderly scheme of distribution was being evolved for the 1944-45 season.

With the consent of the Central Government, the Bihar Government imposed a ban on export of gur from the province. The Bihar Government, due to decrease in the acreage of sugarcane in that province, did not ask for the allocation of any quota for export of gur. The press note issued on 15th November 1944 stated that there had been a decrease in the acreage under sugarcane by 20 to 25 per cent approximately and consequently if gur was allowed to be made for export, sugar factories would not be able to get their normal supply of cane. Therefore, export of gur was prohibited from Bihar and no quota for the time being was fixed for export. The inter-district ban on movement of gur was re-introduced on 7th December 1944.

Measures of control over gur were inaugurated in other provinces also. The Government of Bombay fixed the wholesale ceiling prices of gur in the districts of Nasik, Ahmednagar, Poona, Sholapur, Satara and Belgaon at Rs. 14 per maund. Distribution of gur was also taken under control with effect from January, 10, 1945. In Bengal also gur came under control. The Government fixed the controlled rate for gur at Khulna at Rs. 12-2-0 per maund. On 23rd February 1945, the Government of Bombay issued an order fixing the retail prices of the three qualities of gur in Bombay City between 0-6-9 to 0-6-0 per seer. In Bihar also the ceiling price of gur was determined at Rs. 9 per standard maund. Likewise in Delhi, Ajmer-Merwara and other deficit areas gur ceiling prices were fixed and distribution was brought under control.

On 24th January 1945, the U. P. Government issued an Order prohibiting the movement of gur by road or river without a permit. As the crushing season of 1944-45 did not show signs of maximum production of sugar due to short supply of cane to the factories, the U. P. Government resorted to the method of prohibition of the manufacture of gur in certain areas with a view to help the factories located in the areas. The problem of securing better cane supplies to sugar factories cropped up with the unsatisfactory results of certain mills as the crushing season advanced and mills began working at full speed. The U. P. Government, agitated over the situation, issued the most sweeping measure of control by prohibiting manufacture of gur in reserved gate areas of about 20 factories and the export of sugarcane therefrom. By a notification dated 2nd March 1945, the U. P. Government banned the movement of sugarcane by rail, road or river from any place situated within the reserved areas of the following factories in the provinces :

1. Sakhoti-Tanda, 2. Mohiddinpur, 3. Begamabad, 4. Khatauli, 5. Mansurpur, 6. Saharanpur, 7. Deoband, 8. Rohana Kalan, 9. Pilibhit, 10. Manpur-

Nagaria, 11, Dhampur, 12, Bareilly, 13, Maholi, 14, Hardoi, 15, Khalilabad, 16, Barhni, 17, Bhatni, 18, Pharenda, 19, Shahganj, 20, Nawabganj.

By a subsequent notification dated 14th March 1945, three more areas were added to this list, viz. Shamli, Golaogorkarannath and Ramkola. It was hoped that this prohibition would help the mills in securing better supplies of cane for the remainder of the crushing season but as the Order came too late when almost the mills were closing it did not materially enhance the output of sugar. Simultaneously the U. P. Government, with a view to help mills and discourage output of gur even in the last few days left in the crushing season, issued instructions to Regional Food Controllers to requisition gur in case gur prices persisted at a level over the ceiling price of Rs. 8-12-0 per maund. Such a move would effectively discourage gur production and help the drive for food production in the coming season. The immediate effect of this order was that banks refused to advance loans on gur and gur prices came down to the ceiling fixed. A semi-compulsory and extra-legal measure of asking gur manufacturers to bring in along with gur 5 per cent wheat for sale in the Muzaffarnagar was enforced by the local authorities for some time. By this, gur was not only used as one of the means of tapping the wheat resources of the country-side but the manufacturer of gur was penalised by extra demands to discourage him from turning cane into gur. But this invidious method resorted to for a temporary period, was given up soon.

The short-fall in cane supply also affected gur output in the season 1944-45. Since March 1945 there was a definite tendency for an upward swing in gur prices in the gur markets in U.P. The short crush, in the Western Group, the definite shortage of cane sugar consequent on low crush and the Government's decision to raise water charges on cane cultivation by 50 per cent—all these factors show a further hardening of gur prices in U.P. this season. With smaller arrivals of gur, the demand by the import stations became very acute by the end of March 1945. There was no overstocked position in the gur markets as it was in the last season. Transport facilities and the quota system seem to have definitely improved the gur position at present. Now the whole situation in regard to gur depends upon the manner in which transport will be handled in the ensuing months. It from the start, gur movement takes place smoothly and permits for quotas are issued to the consuming provinces according to their periodic requirements the spectacle of low gur prices in U.P. and high prices in some of the consuming areas will not recur again. The key problem, therefore, is transport for quick despatches of gur from U.P. to other areas in the current season.

Production of Sugar by Khandsari and from Gur

Refined sugar is manufactured by three different processes in India, namely (1) direct from cane from modern vacuum pan factories, (2) from cane by indigenous open pan factories, i.e. Khandsaris (through the intermediate process of Rab), and (3) from gur refined in modern refineries.

A detailed reference has already been made to the production of sugar by the first method, i.e. direct from cane in modern vacuum pan factories. In regard to sugar production by Khandsari, no reliable and definite statistics are available but an estimate can roughly be made on reports. The operation of Khandsaris is particularly noticeable in the United Provinces where

60 per cent of the total Khandsari sugar production in India is being produced. It is estimated by the authors of "Report on the marketing of Sugar in India and Burma" that Khand forms nearly 13 per cent of the total white sugar made in India. About 85 per cent of the quantity of Khand is directly prepared from cane or juice and the rest by re-melting gur. Like gur sugar, its production also depends upon the relative prices of gur and sugar in any year.

The quantity of Khand prepared from cane direct has varied during recent years from 78,000 tons in (1938-39) to 142,000 tons in (1936-37) and 100,000 tons in (1943-44). The production of Khand from gur being very uneconomic is steadily going down. The production of Khandsari sugar during 1939-40 was about 1.25 lakh tons, in 1941-42 about 1 lakh tons in 1942-43 about 1.5 lakh tons and 1943-44 about 1 lakh tons. Because of the short supplies of cane and none too attractive prices of sugar it is estimated that the total production of Khandsari sugar for the current season of 1944-45 will be about 80,000 tons. During the 1943-44 season production by Khand-sari factories ranged between 90,000 to one lakh of tons and so the total production could be taken as one lakh of tons for that year.

In this connection it is of interest to observe that although the estimated production of Khandsari sugar is so large, the figures of the amount of excise duty collected during the last nine years would be so low that they would point out a very small production. The reason for the collection of so small an excise duty is found in the fact that many Khandsaris are small units which can easily escape paying the excise duty. The total amount of excise duty collected from the production of Khandsari sugar in 1934-35 and subsequent years is as follows:—

Year.	Amount.	Year.	Amount.	Year.	Amount.
	Rs.		Rs.		Rs.
1934-35	77,000	1937-38	51,000	1941-42	4,43,000
1935-36	60,000	1938-39	59,000	1942-43	1,57,000
1936-37	47,000	1939-40	1,46,000	1943-44	3,27,000
		1940-41	2,86,000		

The recent increases in the amount of duty collected show that excise duty is being collected from a larger number of Khandsaris than before 1939.

Definition of Khandsari Sugar

Under the Sugar Excise Duty Act, 1934, excise duty is levied on Khand-sari sugar (i.e. sugar in the manufacture of which neither vacuum pan nor vacuum evaporator is employed) under Section 3(1) of the Act. For the purpose of the Act 'sugar' means any form of sugar containing more than ninety per cent of sucrose, and in order that sugar may be taxable, it must be produced in a factory which means any premises in any part of which any manufacturing process connected with the production of sugar is being carried on or is ordinarily carried on, with the aid of power. The sugar produced by the purely agricultural section of the Open Pan Sugar Industry where work is done without the aid of power is not liable to excise duty. Similarly, products like Gur and Rab which do not contain 90 per cent of sucrose are not liable to excise duty. It is well-known that several small-sized vacuum pan concerns manufacturing Khandsari sugar had in order to avoid the excise duty, so adjusted their business that they would not come within the provision of the definition of a 'factory'. With effect from

28th February, 1939, however, under the amended definition of 'factory' they were also liable to excise duty at the rate of 0-8-0 per cwt.

Khandsari production is still being continued because the Khandsaris enjoy definite advantages in spite of the uneconomic method of production of sugar. The Khandsaris need not pay (a) cess on cane which the factories will have to pay, (b) incur no expenses by way of commission to co-operative societies, (c) spend nothing in railway freight or other transport costs for supplies of sugarcane, and (d) possibly escape on occasions even the payment of excise duty of 0-8-0 per cwt. All these factors are responsible for the continued existence of Khandsari production of sugar. The total cost of manufacture of Khandsari sugar may be taken at Re. 1 to Rs. 1-4-0 per maund. The Report on the Marketing of sugar estimates the approximate cost of a typical Khandsari concern in Rohilkhand (U. P.) at Rs. 1-1-8 per maund for khand recovered and rab treated at 0-3-7 per maund.

Khandsari industry appears to be at an advantage in the interior areas, far removed from factories where cane is available cheaply and which cannot be disposed of in any other profitable way. The Khandsari sugar factories can be helped by the Government by improvement of the equipment and introduction of improved types of crushers, juice-boiling bells, etc.; by improvement of the methods of manufacture in order to improve the quality of the finished product; and by better facilities for getting the necessary equipment on hire and by better marketing facilities. The Imperial Council of Agricultural Research sanctioned a grant of Rs. 1,67,330 for the establishment of a Sugar Research Testing Station for the indigenous system of gur and sugar manufacture for a period of 5 years ending in November 1941. A small grant was also made to the Government of Bihar for investigation into the possibilities of manufacturing Khandsari sugar by single pan method. But so far no material results out of these schemes have been placed before the public. The newly constituted Central Sugarcane Committee may be expected to take some interest and explore the avenues of adopting better methods and getting improved qualities of sugar by the Khandsaris.

Sugar Refined from Gur

The third method of producing sugar is by refining from gur. The production of sugar refined from gur in modern refineries is naturally dependent on the relative cheapness of gur and the disparity in prices between gur and sugar. In the years when there will be keen competition from sugar mills due to plentiful supplies of cane and increased output, production of refined sugar will be rather small. When there is a wide disparity between the prices of sugar and of gur so as to enable sugar production more profitable, the refineries will produce more sugar and enjoy prosperous conditions. Thus, production of sugar by refineries varies very much from year to year and is governed by unpredictable factors.

Production of sugar by refining gur, in India, in 1943 was the lowest on record, being only 6,370 tons against the previous low record of 13,400 tons in 1942. Only five factories worked, one in the U.P. and four in the Madras as against 11 in the previous year. The main cause of low production was high gur prices owing to shortage of sugar. The average recovery of sugar per cent gur was 64.6 as against 61.8 in 1942, thus showing

an increase of 2.8 per cent over the last season's recovery. The prevalence of high prices for gur in the season was the cause of low production of sugar by gur refineries.

In the United Provinces the quantity of gur melted was 750 tons in 1943 as against 3,600 tons in 1942. Sugar manufactured was 450 tons against 2,100 tons in the previous season and molasses obtained were 240 tons against 1,200 tons in the year 1942. Thus in the year 1943 the output of sugar as well as molasses were very low. Recovery of sugar per 100 tons of gur melted was 62.50 as against 53.3 in 1942. The increase in recovery of 1.2 per cent during the season is remarkable as an achievement. Recovery of molasses per 100 tons was the same as the previous season at 33.3.

In Madras gur melted was 9140 tons in 1943 as against 13,100 tons in the previous year. Sugar manufactured was 5,920 tons as against 11,300 tons in 1942; and molasses obtained 2,440 against 6,100 tons. The recovery percentages for sugar and molasses for 100 tons were 64.77 and 26.70 against 62.4 and 35.4 in the last season. Recovery percentage of sugar increased by 2.37 per cent while the recovery of molasses decreased by 8.7 per cent compared with the previous year.

The total production of sugar and molasses by refineries in India for 1943 were as follows: gur melted 9,860 tons; sugar manufactured 6,370 tons; molasses obtained 2,680 tons; recovery of sugar 64.60 per cent; and recovery of molasses 27.18 per cent. The comparative figures for the previous season of 1942 were gur melted 21,700 tons; sugar produced 13,400 tons; molasses obtained 7,600 tons; recovery of sugar 61.8 per cent and of molasses 35.0 per cent.

Sugar Refined from Gur in India for 1944

As we go to press, the Note on production of sugar by refineries from gur was published by the Director of Imperial Institute of Sugar Technology for the year 1944. Only four factories produced sugar by refining gur in 1944 as against five in 1943. Total production, however, showed a slight increase, being 7,980 tons against 6,370 tons in 1943. The average recovery of sugar per cent was 59.4 against 64.6 in the previous year. The distribution of factories was two in Madras one in U.P. and one in the Indian States, altogether making a total of 4 for the whole country. The low production and the smallness in the number of refineries can be explained by the high prices prevailing for gur in many parts of the country last year.

It will be interesting to study the following table to understand the extent of the contribution of refineries to sugar and molasses production in India during the last eight years:—

Production of Sugar and Molasses in India by Gur Refineries

Particulars	1937	1938	1939	1940	1941	1942	1943	1944
Number of Gur refineries operating	9	10	10	10	14	11	5	4
Gur melted in tons (thousands)	32	26.7	23.3	50.8	87.3	21.7	9.8	13.3
Sugar manufactured in tons (thousands)	19.5	16.6	14.2	29.6	48.5	13.4	6.3	7.9
Molasses obtained in tons	10.1	8.8	6.4	15.8	32.0	7.6	2.6	3.0
Recovery % of sugar from Gur	60.9	62.1	60.9	58.2	55.6	61.8	64.6	59.4
Recovery % of molasses from Gur	31.5	32.9	27.4	31.1	36.7	35.0	27.1	28.1

Distribution of Sugar in India

Since the institution of control over the sugar industry, the distribution of sugar has been under the supervision and direction of the Sugar Controller for India. As already observed in the foregoing pages, a quota system of allotment from the various surplus to the deficit provinces with minimum pressure on transport was introduced by the Sugar Controller in 1942. Gradually the shortcomings in the operation of control measures noticed from time to time were eliminated and improvements in methods devised to make controls effective.

The following statement gives the provisional quotas allocated by the Sugar Controller for the year 1944-45 from the all-India pool:—

Area			Tons	Area			Tons
Assam	...	...	16,000	Jammu & Kashmir	...	...	4,500
Baluchistan	...	...	4,500	Madras & States	...	...	98,300
Bengal & States	...	...	141,000	N-W. F. P.	...	...	16,500
Bombay & States	...	...	189,000	Orissa	...	...	7,500
C. I. States	...	...	22,000	Punjab & States	...	...	147,000
C. P. & States	...	...	33,000	Rajputana	...	...	35,000
Delhi	...	...	17,500	Sind & States	...	...	29,200
Hyderabad	...	...	16,000	Bihar	...	...	52,000
				U. P. & States	...	...	125,500
Total							* 955,050

(Includes 44,000 tons of Khandsari sugar allotted to areas outside the U. P.)

As in the previous year, effective control over distribution of sugar in the consuming centres with the co-operation of the Provincial and States authorities, timely and adequate provision of transport for the allocated quotas are the two main factors that will contribute to the success of control and the stamping of "black markets" in sugar during the current year. Therefore organisation of distribution and transport of sugar should, as in the past, be carefully looked into by the Sugar Controller for India at this stage of enforcement of control orders in 1944-45.

Importance of Sugar Industry in National Economy

We have dealt with at length the various problems of the sugar industry during 1943-44 and the prospects for the current season of 1944-45. It now remains to see the wider picture and assess the importance of the sugar industry in the national economy of this country.

The figures of production given above will unmistakably demonstrate the importance and present magnitude of the sugar industry in India. In this connection it should be remembered that the Sugar Industry is at present the *second biggest* industry in India, the Cotton Textile Industry being the first and largest, and both these industries are owned, controlled and managed to a very large extent by the nationals of this country. The prosperity of nearly 20 million agriculturists is linked up with the welfare and progress of the sugar industry in as much as the sugarcane growers in India are mostly small-holding peasants, with meagre incomes. Taking into consideration these facts and also that the development of sugar industry has enabled India to keep within her borders a huge annual drain of about

Rs. 16 crores paid to foreign countries before the establishment of the industry, it is easy to see the importance of the Sugar Industry in the national economy of the country. The need for its development and continued progress for the welfare of India cannot be over-emphasised. The rapid growth of the Sugar Industry in a comparatively short period to its present position of eminence, the possibility of production of sugar from the existing equipment of factories in quantities larger than the present estimated consumption, and the invaluable contribution Sugar Industry has made during the most testing period of the war are the highlights of the history of the Sugar Industry in India. It is therefore essential, nay, very vital and indispensable, to create conditions for a complete cessation of all imports of foreign sugar into the country and for the expansion of markets within the country and without the country to as large an extent as possible.

So long as the war lasts the problem, of course, is not difficult because there will be practically no competition either from Java or Phillippines. As a matter of fact, Indian sugar has assumed great importance during the war with the loss of Java and it may be hoped that it will emerge with a stronger and sounder internal and external position through the ordeals of war. With the termination of the International Sugar Agreement there is a large scope for India to build up an export market, after producing enough to go round for the internal consumption and military demands. Before Java could come into the world's markets again, Indian sugar should acquire and consolidate its position in nearby markets.

Consumption of Sugar in India

The present annual consumption of sugar is roughly estimated to be about 11 lakh tons per year (our *per capita* consumption is very small as compared with most other countries of the world in normal times as a glance at the relevant Table No. — in the *Sugar Industry at a Glance* will show). During the last two or three years due to the compulsory cut under rationing, the *per capita* consumption of sugar in India must have temporarily come down further. Consumption of sugar in India, however, is not steady and varies from year to year with the rise and fall of price of sugar, with changes in economic conditions, etc. But we will not be far wrong if we estimate the annual consumption of sugar in India at 10½ lakh tons in 1938-39, 10¼ tons in 1939-40, 11 lakh tons in 1940-41, 10½ lakh tons in 1941-42, 11 lakh tons in 1942-43 and 12 lakh tons in 1943-44. The inflationary conditions and the increased economic activity in the country due to the war-effort have resulted in the inclusion of a new class of consumers of sugar—a class which had never taken to consumption of sugar before. Consequently demand from civilian sources for consumption has also increased in quantity. The Army is now also an important consumer of sugar, and in order to reduce their consumption of sugar, a gur ration was also introduced in the military since 1943. Increase in the habit of consuming sugar is helpful to the industry for the future. It can definitely be expected that internal consumption of sugar would be higher after the war, due to the higher standard of living following from the huge plans for the economic development of the country. The Bombay Plan which contemplates the provision of basic amenities like good food, etc. if implemented, will necessarily give an impetus for consumption of sugar as an essential article of food by millions in this country. Therefore in the post-war period, there are large prospects for increased consumption of sugar in the country itself. Even an

output of 15 lakh tons can now easily be consumed at the present scale of demand for sugar in the country, but, due to rationing, those that can consume more do not get it.

Value of Imports of Sugar and Reduced Revenue from Import Duty

The development of Sugar Industry in India is a great national need of the country. The decreasing measure of dependence of this country on outside supplies of sugar will be clearly seen from an examination of the statistics of imports (*vide* Table No. 32). Since the loss of Java to the enemy there was a complete stoppage of imports of foreign sugar into India. We hope that there will be practically no import of foreign sugar now, India having reached a position of self-sufficiency.

India Exports a Small Quantity of Sugar

Since the last two years, despite rationing of sugar in the country and the large military demands for it, India exported a small amount of sugar to the neighbouring countries. The export quota for 1943 and 1944 was fixed at 15,000 tons. In answer to a question from Mr. Manu Subedar in the Central Assembly on March 16, 1945, Sir J. P. Srivastava, the Food Member said that a quota of about 17,000 tons of sugar for export to neighbouring countries was permitted by the Government of India. The export in 1942-43 was 30,836 tons, in 1941-42, it was 18,843 tons, and in 1940-41, it was 13,965 tons, according to the Review of the Trade of India, for 1942-43 published in 1945.

With the clearing of the war clouds in the West and the end of the European war, the improvement in shipping position will be definitely felt in a short time and the sugar-starved Middle East countries are likely to ask for Indian sugar. Therefore both to safeguard our internal consumption position and to help the neighbouring countries with reasonable exports of sugar, the policy of maximisation of sugar output in India must be pursued with unrelenting vigour and undiminished enthusiasm.

Protection to the Industry to Continue till 31st March 1946

The sugar industry made tremendous progress under protection granted to it since 1932. The results of the last fifteen years have justified amply the wisdom in extending protection to the industry and its contribution is immense today for the welfare of the nation. It would be difficult to imagine what plight we would have been in, had there been no well developed sugar industry in India and had we depended upon imported sugar for our essential needs. The question of protection has become insignificant with the dislocation in international trade and the eclipse of Java from the sugar markets of the world. It can be said with a good deal of truth that Indian sugar has no competitor now in the field both in the internal markets as well as the sugar-starved Middle East and nearby markets. However, the broader question regarding the need for estimating the quantum of protection necessary after 1946 cannot be ignored. If protection is to be withdrawn in the post-war years, it should only be done gradually and by progressive stages, carefully judging and studying the reaction of each step on the industry in the general post-war setting of the trade and commerce.

We suggest, however, that the present protection should be continued for a further period of 3 years, when the question can be appropriately examined by a Tariff Board after conditions become normal and stabilised. The present import duty on sugar is Rs. 6-12-0 per cwt. which, with a surcharge of 20 per cent, and addition of an equivalent excise duty of Rs. 3 per cwt. amounts Rs. 11-1-7½ per cwt. (Vide Table 32, on page xv, in *The Sugar Industry at a Glance*.)

Sugar Industry Protection and Consumers' Interests

The effect of the protection granted to sugar industry in India from the point of consumers needs a little examination here. A detailed discussion of protection *versus* the consumers interests has been given in our 1938 *Annual*, and only a bare outline is needed here. We pointed out previously the beneficial result of the policy of discriminating protection adopted by the Government of India and came to the conclusion that the policy of liberal protection to sugar proved to be an unqualified success in that it was responsible for the rapid strides that the industry made in 6 to 7 years. As a result of the phenomenal development of the sugar industry in recent years, this country is now self-sufficient in regard to the requirements of sugar and the Indian sugar industry has also played a very important role in war-time economy of the country. The Tariff Board also came to a similar conclusion that the "ordinary consumer" has, so far, no cause for any complaint against the policy of protection and indeed has every reason to be satisfied. With only a small sacrifice on the part of the consumers, we have been able to develop a very important large-scale industry in the country and this is a great achievement in itself, about which the whole country may feel proud. The advantages gained in the long run will certainly outweigh the negligible sacrifice made by the consumers. In the post-war years, the consumers have every right to expect a lowering of sugar prices, along with a fall in the general level of prices. A word of explanation is necessary here in regard to the rise in sugar prices during the last three years. This rise was necessitated by the increase in the price of cane, necessitated by the increase in the cultivator's cost of production, and the increase in manufacturing costs due to the war.

There is every reason to hope, that with the improvement in cane-growing, the development of subsidiary industries like power alcohol, plastic and rayon manufacture from bagasse, etc. it will be possible to bring about a reduction in prices of sugar, and the Indian consumer will not have to regret at any time the generous policy of protection pursued towards the sugar industry.

Protection Decidedly an Advantage to the Country

After a careful appraisal of various relevant factors, e.g. the magnificent progress of the industry, the almost complete self-sufficiency that we have achieved in regard to sugar, the improvement in the lot of millions of cultivators as a result of better returns from the cane crop cultivation, the relief afforded by the industry in cutting down the problem of severe unemployment in the country, particularly amongst the educated and technical men, the subsidiary industries which are bound to spring up, the scope for profitable development which was afforded to indigenous dormant

capital during a period of acute world depression, the development witnessed in villages in the gur industry, and the general confidence gained by industrialists and managers of big establishments in India by the expansion of the industry, we feel that any frank and unbiassed person cannot help arriving at the conclusion—perhaps the only conclusion—that the development of the Indian Sugar Industry has completely vindicated the policy of protection which has indeed proved a great blessing to the country. It has made possible for the people to get their quota of sugar, even during the war period, although perhaps in a smaller quantity, and thus has been responsible in eliminating a sugar famine which was the lot of many countries during the Second World War. The Sugar Industry today is unquestionably a great national asset and only due to its development to its present size, it was possible to supply this cheap, essential, energising food, containing 100 per cent carbohydrates, to the people of the country, at a time when there is a shortage of carbohydrates in general in all parts of the world.

Minimum Cane Prices and Production of Sugar in Provinces and States

We have so far dealt with the problems of sugar industry at length in the two major provinces of U.P. and Bihar as well as with the total all-India production of sugar during 1943-44. Likewise we have dealt with the minimum prices of cane fixed in those two Provinces and many other problems peculiar to those two Provinces but having a bearing on the sugar industry as a whole. Let us turn for a moment towards other Provinces.

Sugar Industry in Madras during 1943-44

The area planted with sugarcane in the Madras Presidency during 1943-44 showed an increase of 26,000 acres over the last year, the figures being 1,47,980 acres against 1,21,970 acres in 1942-44. The increase in acreage is due to better return to cane growers in factory areas and the higher prices of gur and consequent good demand for gur. The Government of Madras banned manufacture of gur in factory areas and directed the supply of cane to the factory at the rates fixed by them in order to encourage maximisation of sugar output. Factories paid for cane from Rs. 17 to Rs. 28 per ton. This was the minimum price fixed in the province for sugarcane. The total production of sugar in the Madras Presidency was 44,100 tons in 1943-44 against 32,700 tons, in 1942-43.

Sugar control worked on the whole in a satisfactory manner during the year. Sugar distribution to the districts was arranged as per Zonal Scheme introduced by the Commissioner of Civil Supplies and worked well. There were no "black markets" on any considerable scale.

Sugar Industry in Mysore during 1943-44

The sugar factory at Mandya in the Mysore State worked for a total of 250 days and the total quantity of cane crushed was 2,04,587 tons. Sugar produced was 20,210 tons during 1943-44 as against 15,666 tons in the previous season. There was an improvement in the recovery, which stood at 10.26 per cent compares favourably with the All-India average recovery of 10.26 per cent. The output of sugar would have been higher during the year, but for the drop in the supply of sugarcane, the planting of which received a set-back owing chiefly to the offer of more attractive prices for paddy and other food crops as well as for gur manufacture.

The minimum price fixed for sugarcane during the year 1943-44 was Rs. 18 per ton. This was increased further during the year 1944-45 in view of the increase in the ex-factory price of sugar by Rs. 1-7-0 per maund with effect from 20th October 1944. The quantity of molasses produced was 6,100 tons during the year 1943-44 and the whole of it was utilised for the manufacture of power alcohol and rectified spirit.

Sugar Industry in Bombay-Deccan during 1943-44

The 1943-44 cane-crushing season in Bombay was moderately good for sugar output. The crop was on the whole fairly satisfactory and free from diseases. Sugar production was maintained on a satisfactory level in spite of difficulties of harvesting, labour costs and short supplies of essential chemicals and others. Total production of sugar in the Bombay-Deccan was 98,000 tons in the season 1943-44 compared with 96,438 tons in the previous year. Bombay is a deficit sugar province as the output falls short of consumption. Production is only about half of the estimated provincial consumption of Bombay.

Valuable experimental work on sugarcane cultivation is being continuously carried on by some of the Deccan mills and useful information and data have been collected by research. Due mainly to irrigation and water supply difficulties, scope for the expansion of sugar industry in the Deccan Canal areas is being restricted. On the other hand, sugar production will probably suffer and come down in 1944-45 due to the enforcement of Bombay Growth of Food Crops Act, making it compulsory for all sugar mills to put under cultivation of food crops and cereals 50 per cent of the acreage of sugarcane crop.

In this connection it may be recalled that the Bombay Government, with a view to further the "Grow More Food" campaign, passed in the middle of 1944, the Bombay Growth of Food Crops Act, thereby compelling the sugar factories of the Province to devote half of the land for the cultivation of food crops like cereals for the season 1944-45 and thereafter. The enforcement of the Act entailed considerable difficulties as the sugar mills were obliged to put 50 per cent of their reserved cultivable area to produce food crops. Despite several protests from the sugar mills and the public, the Government of Bombay persisted in its enforcement for the current season of 1944-45 and did not modify the provisions in so far as it related to sugar mills.*

In Bombay, one distinguishing feature of the sugar industry is that mills themselves own large plots of land in the areas nearby and raise the major portion of their cane requirements for making sugar. In U. P., Bihar and other areas, the mills on the contrary, depend for the supply of cane on individual cultivators and small peasants who cultivate the sugarcane crop in their fields. Thus the Bombay sugar factories possess a definite advantage of having all their cane supplies under their own control. The benefits of large-scale cultivation and use of machinery and tractors for tilling the soil can, thus, be enjoyed by the sugar mills who own large plots. But the enforcement of the Bombay Growth of Food Crops Act for the sugar mills is fraught with grave consequences for the sugar industry in the Province as the mills will have short supply of cane if 50 per cent of their sugarcane acreage is turned to the cultivation of food crops. Such a con-

* There is some hope of this matter being re-considered. *Vide* recommendations in this behalf, on page xxxv.

tingency will keep the mills idle in the crushing season for considerable time for lack of cane supplies and result in a decreased output of sugar in Bombay, which is unfortunate, for various reasons.

Commenting on the application of the Bombay Growth of Food Crops Act to the sugar mills, Mr. M. P. Gandhi, *Editor, Indian Sugar Industry Annual* in a press statement, said :—

“The Sugar Controller’s recent reduction of the sugar quota for the various provinces this year, following the expected smaller sugar production in 1944-45, and the decision of the Bombay Government to enforce the Bombay Growth of Food Crops Act, thereby compelling the sugar factories of the Province to devote half the land for the cultivation of food crops, suggests lack of co-ordination in the activities of the various departments of Government. The enforcement of the compulsory cultivation of food crops on 50 per cent of the cane areas in Bombay Province will result in a further reduction in the output of sugar in Bombay where the total production last season (1943-44) was about 96,000 tons, while the quantity allotted for civil consumption was about twice as much. When this reduction in production by the Deccan factories in 1945-46 is coupled with the short-fall in U.P., Bihar, Punjab and Bengal where the acreage under cane is 25 per cent smaller, the shortage of sugar production in subsequent seasons in the whole country will be keenly felt by the people whose ration is likely to be curtailed if the defence services’ demands and exports are not materially reduced.”

It is to be hoped that the Bombay Government will re-consider its decision even now in the light of the declared aims of the Food Department and the Sugar Controller to *maximise* sugar output in the country, and to modify the operation of the Act so as to exempt cane-growers, near factory areas, whether individuals or companies, from the compulsory turning of 50 per cent of their land into producing food crops. This measure is very essential in the interests of the immediate needs of the consumers as well as the future of the sugar industry in the Province, for after all sugar is also a very valuable article of diet, which is in short supply.

In any cursory survey of the progress of sugar industry in Bombay-Deccan, special mention must be made of the recent experiments that are being made for the manufacture of sugar-candy in India. A sugar-candy research scheme, financed by the Imperial Council of Agricultural Research is in progress at Ravalgaon (Nasik District) for the last 3½ years. Outstanding improvements such as the use of steam and modern machinery have been introduced in the process of the manufacture of sugar-candy. The plant at Ravalgaon is the first of its kind in India and in quality some of the varieties of candy produced equal if not excel the imported sugar-candy. Arrangements are also being made to train chemists and *Karigars* intending to be employed in this industry.

There are very few mills in India capable and equipped with the necessary plant for the production of sugar-candy which is very much in demand in this country and is largely imported from abroad. The Ravalgaon Sugar Farm has made successful efforts to produce good variety and types of sugar-candy crystal. We venture to suggest that sugar mills in other provinces may profitably explore the avenues for producing sugar-candy in the post-war period.

Sugar Production in Bengal and Other Areas in 1943-44

Famine and disorganisation in civilian life in Bengal resulted in lower production and short-season. Production of sugar in Bengal for 1943-44 amounted to 13,600 tons as against 16,500 tons in the previous year while the yearly consumption is as high as 1½ lakh tons for Bengal and the neighbouring States. The number of factories that crushed cane were 6 against 8 in 1942-43 and even those under work did not obtain a satisfactory crush for lack of cane supplies. The province was deeply afflicted by widespread famine. Naturally shortage of labour and other factors also affected the output of cane crop.

The deep scars left by famine on the economic life of the Province persist even today and the output of the current season (1944-45) also will be comparatively poor.

In Punjab, N.-W.F.P., Orissa and Indian States production of sugar during 1943-44 was fairly good and there were no special features. Production of sugar in Indian States amounted to 123,800 tons in 1943-44 compared with 85,000 tons in the previous year, thereby showing nearly 45 per cent increase in total output.

Sugar Enquiry Committee of Bengal 1942-43

The Report of the Sugar Enquiry Sub-Committee appointed by the Government of Bengal was published in 1942. The Bengal Government naturally felt anxious to develop and increase production of sugar in the Province as the estimated capacity of output of the existing mills being only about 50,000 tons against an annual consumption of 1.5 lakh tons. There has not been much co-ordination between the mills and the growers of cane. Further the ryot in Bengal has always a preference for paddy and jute crops. The need for planned development of sugar industry in Bengal was very great.

As a result of the findings of the Special Committee, the Bengal Sugar Board was constituted as an advisory body to suggest plans relating to increased production of sugar and gur in the Province. A detailed account of its functions and powers has been given in our 1943 *Annual* (see pp. 48-49). It must be observed that due to the abnormal war conditions and the proximity of Bengal to the enemy occupied zones, it has not been possible to implement the recommendations of the special Enquiry Committee so far.

Power Alcohol and Molasses Production

Molasses is a very important and valuable by-product of the sugar industry and output of molasses in India as far in excess of the present consumption. So far mainly due to official indifference and lack of sympathy, the Power Alcohol industry which can convert a large quantity of molasses into useful alcohol fuel for motor cars and trucks has not developed in India. Only at the eleventh hour when there was acute shortage of petrol in the country, was attention turned seriously to the potentialities of power alcohol as a substitute fuel which can be mixed with petrol profitably. Sugar interests have been urging since long the development of this useful industry but no concrete steps have been taken on an adequate scale. Consequently we have only a few small distilleries for the production of rectified spirit and power alcohol from molasses. The wastage of molasses for lack of demand has been tremendous in India. At present they are

being used for refining tobacco, for rectified spirit, for power alcohol production in small quantities in U. P. compared with the huge production, etc. But large quantities are being wasted at the mills for lack of demand and some are used as manure at low prices. If the power alcohol industry would be adequately developed in this country, it will not only result in a drop in imports of petrol and saving of money, but also give stability to the sugar industry, due to the profitable utilisation of this by-product. This problem deserves the earnest attention of the industry as well as the Government in the post-war planning schemes.

Production of Molasses in India during 1943-44 Season

The production of molasses in India during 1943-44 directly from sugar mills amounted to 4,38,700 tons against 3,69,100 tons in the previous year. The recovery percentage was 3.61 against 3.54 in the last season. The U. P. alone produced more than 50 per cent of the total output of molasses by sugar mills, viz. 2,62,600 tons against 2,12,300 tons in 1942-43, while Bihar produced 68,300 tons in 1943-44 against 74,400 tons of molasses in the previous year. Bombay produced 28,700 tons and the Indian States about 46,700 tons. The production of molasses by gur refineries in India in 1943-44 amounted to 2,680 tons against 7,600 tons in the previous year. The recovery percentages were 64.60 and 61.8 respectively for the two years.

For the season 1943-44, the total production of molasses *from all sources*, therefore, amounted to a huge figure of 4,41,380 tons. Compared with this huge production, the demand for power alcohol and rectified spirit manufacture was very low and poor. The chief complaint in India has been that the large surplus production of molasses is being annually wasted without any beneficial use and that the disposal of the enormous quantities produced is becoming a nuisance problem for mills from year to year. Since only a small quantity of molasses is used for refining tobacco and power alcohol and as no other profitable means of employment have been so far adopted, a large quantity of molasses is used as manure and other unprofitable uses at cheap prices. The wastage of molasses in this country is thus very large.

U. P. Power Alcohol Act, 1940 (Act VIII of 1940)

In August 1940, the U. P. Government promulgated the Power Alcohol Act controlling the production, supply and distribution of power alcohol in U. P. as fuel with petrol. Some of the recommendations of the Joint Power Alcohol Committee of U. P. and Bihar,* (1938) which were put in cold storage for a considerable time, were given effect from April 28, 1941 by the above enactment. Orders were issued at once for the enforcement of the Act in the districts of Bareilly, Bijnor, Budaon, Pilibhit and Chandausi, Amroha tehsils of the Moradabad district. The proportion of alcohol to be mixed with petrol as fuel for motor cars was fixed at 1: 4 or 20 parts of alcohol with 80 parts of petrol to make a unit of power fuel. The Act was subsequently extended to other areas and the price of alcohol was fixed at 6 annas per gallon in the beginning. To increase production, licenses were granted to the Kesar Sugar Mills and the Oudh and Hindusthan Sugar Mills jointly for the manufacture of power alcohol from molasses by importing plant and machinery from abroad. Following the grant of licenses, these

¹ The Editor of this *Annual*, Mr. M. P. Gandhi, was a member of this committee. Its recommendations are summarised in the 1939 *Sugar Industry Annual*.

mills placed orders in the United States for the delivery of the necessary plant. But it appears, due to lack of necessary priority in shipping and support of the Government to back the orders as an urgent war measure, deliveries in respect of these orders have not yet been made and the attempt to augment production have proved abortive.

As pointed out, in the previous *Annals*, both the Central and the Provincial Governments have been dilatory and unhelpful in the matter of production of power alcohol and no progress was made in regard to actual production of power alcohol while other countries developed power alcohol production, despite their vast petrol resources. The present war and the shortage of petrol suddenly overtook the country by surprise and the authorities realised the need for development of power alcohol only when the crisis came on the neck and the internal transport situation became disorganised. Then it was too late to secure immediately any machinery and plant for production and so the existing distilleries alone were to be asked to go full speed ahead and production was stepped up, though to a very limited extent. The American Technical Mission headed by Dr. Grady was reported to have strongly recommended the production of power alcohol to relieve the pressure on transport. It was believed that the necessary plant would be imported under Lease-Lend on the strength of the recommendation, but later on it became clear that nothing came out of it and all the high hopes aroused by the visit of the Mission were belied.

It is also reported that Distilleries Co. Ltd. of London had prepared in March 1943 after a close enquiry a detailed report and recommended the construction of alcohol distilleries in India of standard design, each one million gallons unit capacity of power alcohol per annum or 3,000 gallons per day. The plan proposed would operate under the *Melle Fourth Technique Process* for the production of alcohol direct from molasses wash. It was stated that subject to suitable priority being made available from the Government the whole project for the construction of the six distilleries could be executed and operated in less than two years. But it is a pity that no attempt has been made in this direction even, and one of the main recommendations of the Tariff Board has not been implemented.

Power Alcohol Act in Bihar Passed in 1942

The Bihar Government following the lines of the U.P. Government and the recommendations of the Bihar Power Alcohol Advisory Committee's Report passed in 1942 the Bihar Power Alcohol Act but for the same reasons mentioned above, no progress worth the name was recorded.

Power Alcohol in Hyderabad State

The Nizam Government also passed the Power Alcohol Act applicable in their territory and enforced the use of alcohol as fuel. The Power Alcohol Factory started by the Government and equipped at a cost of Rs. 8 lakhs has been working well from the last two years producing nearly 3 lakh gallons of power alcohol a year and utilizing 5,600 tons of molasses.

Power Alcohol in Bombay and Other Areas

The Bombay Power Alcohol and Petroleum Act of 1942 received the assent of the Governor-General in December 1942 and came into force at

once. Use of power alcohol as admixture with petrol was compulsorily enforced in some areas in Bombay. One of the sugar mills in Deccan was equipped with the necessary plant and is expected to produce about 30,000 gallons of power alcohol per month.

Other Provinces like Madras, Bengal, the Punjab and some Indian States also took steps later on gradually to introduce compulsory use of power alcohol and rectified spirit with petrol as fuel.

Government Dilatory in Encouragement of Power Alcohol Production

The Government of India had been hopelessly negligent in encouragement of power alcohol manufacture in India before and in the early stages of the war. If only arrangements had been made in time for stepping up production of power alcohol as a substitute to petrol, there would not have been such a chaotic disorganisation in internal road transport as was witnessed in 1943 and 1944. Even the sugar industry would have been greatly facilitated by the running of lorries for the conveyance of cane. After meeting the internal miscellaneous demands, more than 4 lakh tons of molasses are available in this country, which, if utilised, will produce no less than 22 million gallons on the basis of one ton of molasses producing 56 gallons of power alcohol. Nearly Rs. 65 lakhs could thus be saved within the country, without affecting the excise revenue. But unfortunately the Governments lacked foresight and pursued an indifferent attitude for developing this valuable source, despite the persistent appeals of the sugar industry.

Even now it is not exactly known to what extent the Government of India have given, under war-time stringency for petrol, encouragement to the increased production of power alcohol. But from the statements made from time to time on this subject by official spokesmen, we will not be far wrong if we characterise the policy as nugatory and progress achieved in this direction from the last three years as inconsequential and infinitely below reasonable expectations of the industry and the public. Only production of rectified spirit by the distilleries was stepped up with seriousness and consequently more rectified spirit was produced in 1943-44.

In March 1943, in reply to a question in the Central Assembly, Mr. Mackeown, Joint Secretary to the Supply Department, stated that the Government of India had asked the Indian Supply Mission in Washington to endeavour to secure two power alcohol plants on Lease-Lend terms, and that the Government would not attempt to import any more plants from abroad. The reason for this decision was stated to be that detailed enquiries had revealed that any attempt to secure and instal imported plant would not yield substantial results within a short period to meet the urgent war needs and that after the emergency petrol could be easily and cheaply secured without need of power alcohol.

Later on Sir Azizul Haque made another reassuring statement about production of power alcohol in the country in the Assembly on 15th November 1944. The Commerce Member stated that every encouragement would be extended for the development of power alcohol industry in the country. He said that there were four power alcohol plants in operation at that time in the country and their total capacity would be between 1½ to 2½ million gallons per year. He also revealed that orders were placed for power alcohol plants only in September 1944 in America but the plants had not been released by the American authorities.

Referring to the subject again Sir A. Ramaswamy Mudaliar, Supply Member, in reply to Mr. Manu Subedar on the 22nd March 1945 stated in the Assembly that distilleries for the production of power alcohol and high strength rectified spirits, against licenses issued by the U.P. Government, were being erected at six places in the U. P. They are at Shimbhaoli, Shamli, Hargaon, Gla, Captainganj, and Deoria. He added that the Daurala Distillery came into production in 1944 but the power alcohol column was not yet in full operation. He assured the Assembly that the question of developing power alcohol production in India would be investigated shortly by a panel under the Planning and Development Department.

Power Alcohol and Rectified Spirit Output in 1944-45

In 1940 some prominent sugar factory owners prepared their plans for the production of power alcohol in India at their sugar factories in U. P. Orders for plants were placed in America, but U. S. A. Government did not release material for fabricating the plants and as a result thereof the plants could not be installed. Not being discouraged by this, some of the enterprising parties undertook to fabricate plants in India. By the time this is going to press, reports have been received that some of these plants, including one at Hargaon, have been successfully put into operation.

The peace time requirements of petrol are approximately 2,25,000 gallons a day, of which 20 per cent or 45,000 gallons could be substituted by power alcohol. If only a few more factories could be set up, India's dependence on petrol from abroad could be reduced to the extent of 20 per cent which is, of course, a considerable gain.

During the year 1944-45 the question of introducing high standard rectified spirit as a substitute for petrol engaged the attention of the U.P. Government and a scheme was prepared by Mr. Shanker Prasad, Excise Commissioner, U.P. The use of rectified spirit as fuel for motor vehicles necessitates slight changes in the carburettor jets and a proposal to introduce it in the case of lorries in the first instance was approved. The opening of three new distilleries in U.P. will enable the supply of about 1,00,000 gallons of high standard rectified spirit fit to be used as a substitute for petrol. Five more distilleries are expected to be erected for the production of rectified spirit in 1945.

Production of rectified spirit, let us hope, is only a temporary measure. The real and permanent solution lies in making absolute alcohol and mixing it with mineral petrol in a fixed proportion. As a matter of fact, exclusive use of alcohol, and that too of a lower strength, though successfully demonstrated, is not meeting the satisfaction of heavy vehicle-owners, who are compulsorily made to use the same. At the earliest opportunity, all the production must necessarily be switched on to absolute alcohol and the admixture with petrol brought into force, as provided in the U. P. Act.

Problems of Power Alcohol Plant Erection

In erection of power alcohol plants in the provinces some facts should be taken into account. The location and size of the distilleries are two important considerations. Location of distilleries centrally in relation to sugar factories will, to a large extent, minimise the trouble and avoid

wasteful expenditure on transport. The problem of small units of manufacture *versus* bigger units is also another which requires consideration. It is a moot point whether small units should be allowed to be set up in factory areas, each producing rectified spirit out of its own molasses or whether molasses should be pooled and bigger units which would be more economical in working should be allowed to be put up in centrally-located places. The Joint Power Alcohol Committee which reported to the U.P. and Bihar Governments on the manufacture of power alcohol stated that it would be more economical to have large-sized plants in centrally-situated localities rather than each factory having a small unit of its own. In planning and developing the production of power alcohol in India, these two factors of location and size should be carefully borne in mind and plans worked out according to local conditions in each Province.

All-India Provision for Fuel Alcohol—Fuel Alcohol Order, 1943

On February 20th, 1943, the Government of India published in the *Gazette of India* the text of the Fuel Alcohol Order making provision for the use of power alcohol as a motor fuel on an All-India basis. The Order was made applicable without prejudice to the provisions of the U.P. Power Alcohol Act, the Bihar Power Alcohol and other existing acts of similar nature in other provinces. This Order enabled the various provinces intending to produce power alcohol and rectified spirit as motor fuel within its jurisdiction to fall in line with the provinces of U.P. and Bihar and make the necessary by-laws and regulations for the use of power alcohol as motor fuel.

The main noteworthy feature is that the Order is applicable not only to anhydrous power alcohol of 99.5 per cent purity but also to rectified spirit of not less than 95 per cent purity. It appears to be the intention of the Government of India that for mixture purposes rectified spirit could be used in the same way as power alcohol.

Fuel Alcohol Control in U.P.

During 1944-45 the U. P. Government wanted to step up production of rectified spirit in preference to power alcohol as stated above. Therefore they encouraged indigenous fabrication of parts for distilleries for producing rectified spirit. They extended facilities for establishing stills, and fixed control price of rectified spirit at Rs. 1-8-0 per gallon.

By a notification dated 10th March 1945, the Draft Rules concerning power alcohol were published regulating the price, production, distribution and quality of fuel alcohol. Fuel alcohol, according to the rules, is defined as denatured rectified spirit which is capable of and destined for being used as motor fuel after it is issued from the distillery. Distilleries are asked to sell fuel alcohol only to the Government who would arrange the sales under license; it should be denatured with one volume of kerosene with 100 volumes of fuel alcohol before it is issued from the distillery; the price at which it shall be delivered to the Government is fixed at 14½ annas per gallon ex-distillery at all distilleries, exclusive of Central Excise duty; the price at which the distributing licensees, viz. the oil companies shall sell to consumers ex-depot exclusive of any provincial sales tax, varies from Rs. 2-3-6 to Rs. 2-5-6 a gallon according to the location situated. The dif-

ference between the ex-distillery price and the selling price at depot is to include the Central Excise duty of Re. 1 per gallon.

The Burma Shell Oil Company has been entrusted with distribution of power alcohol which is purchased on Government account. During 1943-44, 2,28,000 gallons of power alcohol were produced in U.P. and supplied in tank wagons.

Molasses Control in U.P.

In order to ensure sufficient supplies of the raw material, the U.P. Government placed restrictions on the movement of molasses by rail to any station in U.P. or outside except under permit by an Order issued on September 9th 1942. The Order also provided for the fixation of minimum prices at which persons holding molasses were to sell to the distilleries in accordance with the directions issued by the Excise Commissioner of U.P. The Order was intended to ensure that adequate supplies of molasses were made to distilleries for manufacture of power alcohol and rectified spirit for use as motor fuel. The full text of the Order was given in our 1942 Annual. (See 1942 Annual.)

By a subsequent amendment issued on 13th March 1944, the United Provinces Molasses Control Order was amended in such a way as to rectify the mistakes of omission and to enlarge the scope so as to include all people including the dealers to come under the control order. The prices of molasses which were fixed previously very low were also revised for the different varieties.

The Bihar Government issued a similar order controlling molasses prices and disposal by a notification on the 26th May 1943, restricting movement and sale within the Province. The Bengal Government also passed its own Molasses Control Order.

No Central Control Over Molasses and Defects of Present Control

The total ban on the movement and disposal of molasses in U.P. and Bihar naturally met with considerable opposition from the members of the industry, as it was pointed out that with the very slow progress made in regard to production of power alcohol, there was no need for storing all the molasses. The requirements of the distilleries were only about 50,000 tons while the total production of factories alone exceeded 3 lakh tons a year. The difficulty in respect of storage and the low prices fixed for molasses were the subject of strong criticism and it was only after numerous representations that the authorities were persuaded to issue permits for the disposal of the unwanted molasses. Movement by rail entailed difficulties due to the shortage of special tank cars and packed supplies became impossible owing to the scarcity of containers and the cost of packing.

Speaking at the Sixth Ordinary General Meeting of the Indian Sugar Syndicate, in 1943, Lala Karamchand Thapar criticising the Molasses Control Order remarked that 'beyond the irksome control over unwanted molasses very little has been achieved by the Government'. He said: "We are not aware whether the production of rectified spirit has been stepped up at all to the extent anticipated although we deeply feel the irksome control that has been imposed upon the entire production of molasses as though the whole of our stocks will be converted into spirit".

At the Twelfth Annual Meeting of the Indian Sugar Mills Association, in September 1944, Mr. Lalchand Hirachand, the outgoing Chairman, in his address commenting on the Order observed thus : "In my opinion the control is not only not necessary but has put factories to undue hardships and I would, therefore, urge the two Governments (U.P. and Bihar) to withdraw the control orders in the best interests of the industry".

At the same meeting the Indian Sugar Mills Association adopted the following resolution :—

"This Association regrets that the Government of U.P. and Bihar have promulgated Molasses Control Orders to control the movement of molasses although even the elementary conditions necessary for the control of a commodity, such as shortage in supply or an abnormal rise in prices, etc. are completely absent. This Association has all along been opposed to the institution of any control on molasses and urges the two Governments to withdraw the Molasses Control Orders forthwith."

Referring to the same subject again at the Eighth Annual Meeting of the Indian Sugar Syndicate, Mr. Thapar pointedly remarked that 'control over vast quantities of molasses amounting roughly to $2\frac{3}{4}$ lakh tons in a normal season, 85 per cent of which are not required by the distilleries, has subjected factories to all the defects of control with no countervailing benefits'.

The chief complaint against molasses control was that there were no restrictions on the sale, price and distribution of molasses outside the provinces of U.P. and Bihar. There is no central control over molasses and naturally U.P. and Bihar are unduly penalised by control. The result of absence of central control is that while prices in other provinces are high, the U.P. and Bihar mills are compelled to sell at low prices and derive no benefit from the existing high prices in other provinces. Another factor is that large surplus stocks are lying at the mills in U.P. and Bihar and due to lack of adequate storage facilities, the restriction over movement creates difficulties. The levy by U.P. and Bihar Governments of an export duty of Re. 1 as surcharge on all exports from the provinces acted as a damper for disposal in other areas and this was resented by the industry as it becomes difficult and costly to export molasses.

The absence of central control over molasses is a serious defect resulting in injustice and hardships to the factories in U.P. and Bihar. This defect must be removed and only those mills which are near distilleries should under a well-regulated system be asked to provide molasses in adequate quantities to distilleries for power alcohol production and the remaining huge quantities should be disposed of in an orderly way in other areas and at economic prices. Otherwise control over the 'unwanted molasses' should be done away with.

New Uses for Molasses—Manufacture of Food Yeast

Among the various uses to which molasses are put, production of yeast, a food product of high nutrition-value is one. *The Australian Sugar Journal* says that 'yeasts extracted from sugar molasses contain the essential amino acids in kind and proportion very similar to those found in good mixed diet'. It is learnt that Colonial Food Yeast Ltd. is establishing a yeast

factory adjoining the sugar mills in Jamaica. The Government of India is also reported to be planning to build a food yeast plant in India. According to Mr. A. C. Thaysen of the Department of Scientific and Industrial Research in the United Kingdom, the really nutritive part of meat, eggs, fruit and meat is found by British experiments of food yeast from molasses. The production of food yeast from molasses shows a new use for molasses and experiments in this direction are worth pursuing. If a portion of India's vast molasses production can be converted into food yeast of valuable vitamin content, it will be a great asset not only to the national diet improvement but also to the sugar industry whose production of molasses is largely wasted now, in an uneconomic manner.

Use of Molasses in Land Reclamation

Dr. Nil Ratan Dhar, Deputy Director of Public Instruction in U.P. and head of the Chemistry Department of the Allahabad University, made some valuable researches on the utilisation of molasses. He discovered that molasses could be utilised for reclamation of waste land. In a lecture at the Allahabad Agricultural College, Dr. Dhar suggested the use of molasses mixed with press-mud for reclamation of alkali land. He said that molasses contain about 60 per cent carbohydrates, 2 per cent calcium salts, potash phosphates and some free acids. Citing the case of Mysore where molasses were used in rice fields, Dr. Dhar said that the Mysore Government obtained 1,200 to 1,800 lbs. of rice per acre on alkali land reclaimed, whereas the crop had failed completely before. They were hopeful that molasses could be used for reclamation of waste land. Molasses with press-mud, another by-product of the sugar industry, could be used for preventing soil-erosion. Such new uses for molasses will necessarily increase its value as well as price in future as and when they come into vogue.

New Uses for By-Products of Sugar Factories

In an article contributed recently by R. C. Srivastava and others of the Imperial Sugar Technology, some new uses for press-mud were discovered. It was found that sulphitation press-mud can be used for (a) the preparation of activated carbon, (b) preparation of a dyestuff, (c) as fuel. The carbonation press-mud is shown to yield good filter-aids. Among the new uses discovered for the sulphitation and carbonation press-muds are (1) a patent for fire extinguishers, (2) metal-polishing powder, (3) Board chalk, (4) Putty-paste for slate colour and (5) Tooth-powder. It is a good sign that research is being applied more and more for the discovery of new uses for what were hitherto thought as waste products to be thrown away.

By-products and Auxiliary Industries—Rayon and Plastics

Bagasse is one of the by-products of the sugar industry. Due to the costs of transport and disposal, mills have been making use of it as fuel and in the coal shortage days more of it is used as fuel. It has been found out that artificial silk or rayon can be manufactured from bagasse. The development of rayon manufacture from bagasse will establish another by-product industry in India and our dependence upon imported silks will be less. Recently the *Journal of Scientific and Industrial Research* has mentioned of the possibilities of producing plastics from bagasse which is not now put to any use. These revelations are, indeed, helpful and science

and research should be mobilised for better exploitation of its possibilities for industrial purposes.

Confectionery and Biscuit Industry

Another direction in which there promises to be scope for development in India is the establishment of a confectionery and biscuit industry. India imports now confectionery and biscuits from other countries despite the fact that she has valuable raw material and an unenviable sugar industry. It is possible to develop the confectionery industry in India and in the post-war years some industrialists may explore this line profitably. Sugar is used for the manufacture of biscuits and confectionery, and it is available easily. Therefore the establishment of these auxiliary industries of the sugar industry offer innumerable new outlets and demands for sugar.

LAW AND LEGISLATION DURING 1943-44

Sugar and Sugar Products Control Order 1943

By a Notification dated 10th October 1944 the Sugar Controller extended the scope of the above legislation by including an additional clause in the original order for making forfeiture of the quantity of sugar together with packages in respect of which any offence is committed under the Sugar Control Order. Power is vested in the trying court to do so if it is satisfied that the offence has been committed. The Gur Control Order is also similarly widened in scope by the inclusion of forfeiture clause for offences committed.

Sugar (Temporary Excise Duty) Ordinance 1944

Simultaneous with the increase in sugar prices, the Government issued an Ordinance imposing (a temporary) excise duty of Rs. 1-7-0 per maund on old stocks of sugar held by mills and dealers on 21st October 1944. The Ordinance is meant to take away the profits that the mills and traders would otherwise make on the old season's stocks, when the prices have been increased for the new season's sugar, to compensate for the increased price of cane principally.

Protective Duties Continuation Act, 1944

The Protective Duties Continuation Act, 1944, to extend up to 31st March 1946, the Protective Duty leviable on sugar imports was passed on 26th April 1944, by an Ordinance of the Governor-General.

War Risks Insurance (Extending) Ordinance, 1944

By an Ordinance issued on 11th March 1944, the Government of India extended the period of the compulsory insurance of mills under the War Risks (Factories) Insurance Scheme upto the end of 31st March 1945 but the premium paid was reduced from 2½ per cent to 2 per cent. As the danger of war risk was practically over the sugar mills in the interior, particularly in U.P. and Bihar, wanted the abolition of the compulsory insurance system. Even after the end of March 1945, the War Risk (Factories) Insurance Act was extended for a further period of six months at the reduced premium of 1½ per cent on the block value.

U. P. Sugar Factories Control Rules Amended

By a Notification dated 28th November 1944, the U. P. Sugar Factories Control Rules were amended for the appointment of a Technical Committee to advise the Government and the mills. A special committee of six members were appointed to aid and advise the Government on technical and technological matters, pertaining to the sugar industry.

None-too-enviable Position of Sugar Companies re : Profits

The low prices fixed for sugar and the stringent control measures enforced from the last three years limited the scope and margin of profits in the sugar industry. From a review of the general position and the balance-sheets of a number of sugar mills, it will be found that the sugar industry has enjoyed little prosperity even during the war-period. Despite shortages of raw materials, spare parts, and various difficulties like high labour costs, mills concentrated on increased production but the profits made by them were not large. It must be stated also that unlike other industries, e.g. cotton, coal, steel, which have had a prosperous period during the war, the sugar industry has not been able to distribute satisfactory dividends and to build up any reserves for any emergency. This is a very important matter which the Government should remember in any post-war policy affecting this industry. The table on page 62 will show the dividends of a few sugar companies from 1935 to 1944.

Increase in Sugar Prices recommended for 1945-46

We also suggest that when prices for sugar are fixed for the 1945-46 season, the Government should adopt a little more liberal attitude, particularly because several factories made no profits in 1944-45 owing to the short-season which led to increased manufacturing costs.

Sugar Industry—A Big National Asset

During war-time, there was a progressive increase in the consumption of sugar in India and the sugar industry was able to stand the storms and stresses of an exacting world-war. The abnormal demands made on it with a short notice for preparation and full equipment were successfully met for the most part and the industry played a significant role in the war effort and in the civilian economy. Despite the hard and long hours of work by the mills in the cane-crushing season with practically no replacements for the past four years and absence of regular and adequate supply of raw materials, like sulphur, the industry has acquitted itself creditably, and has served the public well by producing maximum quantities of sugar, which was unavailable from any where else. The emergence of the Indian sugar industry through the war into a major position is an event of world-wide importance. The Indian Sugar Industry furnishes an excellent example of the success of the policy of protection, and given proper care and attention, it will play a still more important role in the future economy of the country, by a steady and well-dispersed expansion, which we consider, is indispensable, looking to the necessity of a larger production of energising foods like sugar to meet the requirements of improved standards of living and nutrition which are expected to follow in the post-war period.

*Capital and Net Block of Sugar Companies, and Dividends
since 1935*

Name of Sugar Factory	Paid-up Capital with De- bentures*	Net Block	DIVIDENDS %										
			1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	
	Rs.	Rs.											
Balarampur ...	28,00,000	23,94,169	10	10	3½	2½	Nil	Nil	Nil	Nil	5	5	
*Basti ...	18,00,000	18,94,611	15	25	15	15	12	5	10	20	30	20	
Belsund ...	20,49,950	14,47,872	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	
Belapur ...	37,59,800	36,07,486	24	16	14	14	20	20	14	12	18	18	
*Bharat ...	6,25,000	4,91,832	Nil	7½	10	5	5	Nil	5	7½	12½	10	
Buland ...	24,00,000	22,69,814	...	5	6	11½	11½	12½	17½	22½	22½	25	
*Carew ...	65,00,000	56,14,075	12½	12½	10	10	Nil	Nil	Nil	Nil	12½	10	
Cawnpore ...	25,00,000	27,66,414	25	10	5	5	2½	2½	15	15	25	15	
Champarun ...	18,00,000	19,47,896	10	20	5	5	7½	2½	15	15	30	20	
Deccan Sugar and Abkari ...	23,60,000	31,02,528	35	20	10	10	10	5	10	...	...	.....
*East India Distilleries & Sugar Factories ...	£ 314,780	£3,09,055	10	10	5	10	15	12½	10	...	...	.....
Durbhanga ...	26,00,000	18,19,829	...	...	...	...	...	...	12½	10	25	10
*Deoria ...	8,99,452	10,33,906	...	...	...	5	5	Nil	5	7½	...	.....
Ganesh ...	8,00,000	8,25,407	Nil	10	5	5	2½	Nil	12½	...	...	.....
Ganga ...	8,52,841	9,36,912	...	...	...	9	18	12	20	20	...	.....
*Gaya ...	9,84,200	11,27,452	8	8	8	8	8	8	8	...	8	8	
Mahaswastika ...	6,50,000	5,42,176	...	...	...	Nil	Nil	Nil	...	...	...	.....
Modi ...	12,00,000	16,22,542	10	9	10	7	12	12	15	...	...	.....
*Mysore ...	30,79,280	21,79,280	11½	15	10	15	15	20	20	20	20	20	
*Nawabganj ...	19,46,030	19,83,186	10	10	5	11	10	5	12	...	20	15	
New Savan Sugar ...	11,00,000	8,00,000	Nil	10	Nil	Nil	Nil	Nil	10	7½	12½	15	
*New India ...	14,12,700	12,68,372	...	...	...	Nil	Nil	Nil	Nil	Nil	...	...
Punjab ...	11,93,642	26,17,247	15	20	15	15	6	Nil	10	10	10	10	
Purtabpore ...	15,00,000	16,02,376	Nil	7½	Nil	Nil	Nil	Nil	5	Nil	12½	7½	
*Ramnugger ...	24,00,000	28,99,038	...	...	...	Nil	Nil	Nil	Nil	...	...	.....
Raza ...	15,00,000	20,28,609	6	10	7½	12½	12½	12½	17½	22½	22½	25	
*Ryam ...	10,97,400	7,10,917	15	10	Nil	Nil	Nil	Nil	Nil	5	20	15	
*Samastipur ...	17,19,000	11,94,577	Nil	Nil	Nil	Nil	Nil	Nil	Nil	5	10	7½	
*Shree Sitaram ...	10,95,462	10,20,378	6½	Nil	10	10	...	5	7½	12½	15	.....
*Sitalpur ...	13,01,310	12,05,659	Nil	8	Nil	2½	2½	Nil	Nil	5	6½	6½	
*South Bihar ...	13,25,000	16,79,861	12½	15	15	25	10	9	15	10	...	.....
*Upper Ganges ...	11,99,900	10,38,095	Nil	5	7½	7½	10	Nil	17½	15	15	.....

* Only those marked with asterisks include Debentures.

PART II

PRESENT PROBLEMS OF THE SUGAR INDUSTRY AND ITS FUTURE PROSPECTS

NEED FOR CONSOLIDATION AND RE-ORGANISATION OF THE INDUSTRY

The foregoing pages have been devoted to a detailed analysis and survey of the working of the sugar industry in India during the last one or two years and we have passed under review the salient features that governed the industry. Having presented a general picture of the progress of the industry, we will refer in the succeeding pages briefly to the post-war plans that are now in the making, with particular reference to the sugar industry and stress on the vital need for consolidation and re-organisation of the industry with a view to ensure production of cheap sugar and *gur* in increased quantities in the years to come. The need to conserve and mobilise all available resources for re-organisation and consolidation of the sugar industry, at the present time when the war in Europe has happily come to an end and fresh outlets for export of sugar are in the offing, cannot be too strongly emphasised. We even venture to state that it may become possible for India to compete, if necessary, with other sugar producing countries of the world, in due course on equal terms in the international sugar markets, if the industry is consolidated and re-organised on modern lines and the costs of production of sugarcane and sugar are considerably reduced, by embarking upon short-term as also long-term plans of comprehensive research.

In the previous *Annals*, we referred to the vicissitudes of the sugar industry in the early stages of its development for over a decade and expressed the opinion that with the advent of the World War II, the Indian Sugar Industry had left behind its worst period of trials and tribulations. By its magnificent contribution during the last four years to the unexpected and large demands for sugar on the military and civilian accounts, it showed its remarkable powers of adjustability and resourcefulness to meet such increased demands occasioned by the outbreak of war. By its enormous contribution to the Allied cause, it has won recognition worthy of its past record and entitled itself for a special consideration in the post-war period.

The immediate need of the hour is the replacement of the over-worked and worn-out parts in machinery and equipment by regulated imports of the urgently needed mill-stores, machinery, and other requisites for the uninterrupted and effective working in the future period. Necessary priorities for imports of machinery and mill-stores should be granted by the authorities and every assistance, technical or otherwise, should be made available to the industry in this respect. The recently constituted Indian Central Sugarcane Committee, we trust, will be able to take suitable steps to place the industry on a very sound footing by tackling the main problems of consolidation and re-organisation now facing the industry. Improvements in the methods of cane cultivation, introduction of new as also early and late ripening varieties of cane in the gate-areas of the mills to make cane available continuously for a longer crushing season, and improved technical efficiency will result in an increase in the recovery percentage and output of sugar. By-product industries have also to be fully developed to enable cheap pro-

duction of sugar. Power alcohol production from molasses should be developed immediately. Above all, there should be a co-ordinated all-India policy for development and extension of the sugar industry. The Provincial and State Governments have necessarily to play an important role in the evolution and working of such a co-ordinated and single all-India policy as regards sugar. The concentration of the sugar industry in U. P. and Bihar created a bottleneck in the war period owing to the lack of transport facilities. The only means of overcoming transport difficulties and high costs of freight as well as the evils of over-concentration of mills in any particular area, are the positive encouragement to set up more mills in Bombay, Bengal, Madras and other Provinces which are sugar deficit areas. Proper planning and development on natural and advantageous lines are the main problems of the sugar industry.

Sugarcane—Necessity of Improvement in Cultivation

The general conditions of sugar manufacture in India are peculiar and have hardly any parallel elsewhere. Mills in India, except in Bombay Presidency, do not generally produce the raw material, viz., the cane as they do in Java and other countries from their own extensive plantations round about the factories but they depend on a large number of agriculturists with tiny holdings of land independent of each other and working without any definite system, industrious but lacking in capital, in resources and in scientific knowledge and consequently incapable, in the absence of any guidance either from the Government Departments or from the factory owners, of making use of modern, up-to-date and efficient methods of cane-cultivation, crop-rotation, manuring, etc. This is a very important factor which has to be borne in mind constantly in a study of the problems of sugarcane and of agricultural improvements in India. In devising the various methods for improved cultivation of sugarcane varieties, care should be taken to see that the small cultivators do really understand and practice the methods and quickly benefit by them. Improvements in the cultivation of better cane varieties should be planned, with a view to bring down the cost of cultivation, and to cheapen supplies of cane to factories.

Extension of Cane Area or Improvement?

A glance at the recent figures of the area under cane cultivation in relation to the requirements of sugar and *gur* in India will show that at present we have a sufficient acreage under cane cultivation to meet the full requirements of the sugar industry. While every effort should be made to maintain the present level of acreage under sugarcane and devise methods to do so, we feel that on a close examination there is no necessity of increasing the extent of acreage under cane crop. The area under sugarcane in 1943-44 estimated to be 4,113,000 acres is about 2 per cent of the total cultivable area in India and approximately 35 per cent of the sugarcane area in the world. Therefore, it is essential to improve the quality of cane as also the yield per acre with a view to lower the cost of cultivation in preference to extension of the area under cane in the present circumstances.

Diseases in Cane and Pests Must be Eradicated

In order to improve the yield as well as the quality of sugarcane it is imperative to eradicate the diseases in cane and pests. It is a matter of common knowledge that in respect of yield of cane per acre, its sucrose-

content or average percentage of recovery of sugar from cane, we in India are still behind many other sugar producing countries, viz. Java, Cuba, Hawaii and the Philippines. Unless we are able in a short time to effect considerable improvements in this direction, with the aid of organised research, it will not be possible for us to stand the vigorous competition of other advanced sugar producing countries in the post-war world. Whether it is due to plantation of cane without a scientific system of rotation of the cane crop, extended ratooning, absence of fertilisers and manure, lack of plentiful water supply either through irrigational canals or tube-wells, and diseases and pests—or a combination of any of the above factors—the fact is that our cane crop at present is poor both in respect of quality and yield per acre. *The direct consequences of this are high cost of production of cane, the low yield and sucrose content of cane and a great national loss, valued at millions of rupees to the agricultural community in the country.*

Great damage is occasionally done by insect pests and diseases in various Provinces. The sugarcane crop is easily susceptible to diseases. In some years the harm caused by pests and crop diseases is so widespread that it materially alters the fortunes of the cultivators and results in considerable reduction in output of sugar and yield of recovery percentage. For instance in 1939-40 there occurred widespread outbreak of Red Rot, and Wilt in the cane-growing belt of Bihar and it appeared that infection was the worst where the largest areas were kept under ratoons. The Bihar Government issued a press note pointing out the great danger of infection to cane crops from ratoons. The Imperial Council of Agricultural Research also issued a note regarding the Pyrilla Pest and observed that the best time to prevent Pyrilla damage was early in the year when sugarcane plants were generally young and not high or leafy to prevent labourers from going into the fields. It was stated that Pyrilla being a recurring pest coming in every 4 or 5 years, widespread publicity should be given amongst sugarcane growers and efforts made to collect and destroy immediately all leaves so affected and to avoid ratooning more than once.

Education of Cultivators by Demonstration of Improved Methods

Apart from tackling by special means the problem of pests and diseases, there is a great necessity of undertaking other measures which would bring home to the cultivator the desirability of effecting improvements in the conditions of cultivation of cane. The average cultivator in India is hardly aware of the latest improved methods of cultivation or manuring or rotation of crops, or selection of suitable varieties to the soil, and the introduction of cross-breeding and hybridisation. He carries on in the traditional style from year to year unmindful of the revolutionary developments in other lands and unaffected by the possibilities of improving his lot. Industrious but having no capital and implements, he works hard but the results have been poor compared with other countries. Improvement in quality of cane grown on the fields and reduction in the costs of cane cultivation are two important problems that face the agriculturist, the Government and the industry at present. In view of its importance it is the duty of the Government to devise suitable means of imparting instruction in modern methods of cultivation to the ryot and to make available to him the fruits of organised research with a view to improve his economic condition, and to establish the industry on a sound and firm basis. Although it is satisfactory to note the work done in this connection by the Sugarcane Research Stations at

Coimbatore, Shahjahanpur, Muzaffarnagar, Karnal, Padegaon in the Deccan Canal area, Pusa, Dacca, Bangalore, Hyderabad and many other places and although improvements have slowly been effected in quality of cane grown in various Provinces, we feel that the time has definitely come when we should redouble our efforts to establish more intimate contact with the cane-cultivator and to initiate him into modern methods of better farming by actual demonstration. For this purpose it is essential to establish a series of demonstration farms and nurseries in all cane-growing Provinces and Districts in order that they may devote their attention to the propagation of cane of higher sucrose-content, of higher tonnage of cane per acre, of early and late-ripening varieties for extending the cane-crushing season, of increasing the yields by suitable crop-rotation, provision of a suitable supply of water for the crop, early detection and eradication of crop pests, etc. These demonstration farms and centres should serve as the arteries from where trained agriculturists would tour round the surrounding districts in order to show or demonstrate efficient methods of cultivation and manuring suitable to the soil in the various places and would also distribute good and improved seed amongst the cultivators. An important function of these farms would be to conduct researches as to the easy methods of combating cane diseases and pests. In addition to this, the Provincial Governments should also undertake other allied work of effecting improvement by educating the ryot in the use of irrigation water, by extension of the canal system and by affording necessary assistance in tapping subterranean sources of supply of water.

Improvements in Cane Crop Essential

The immediate necessities for the cane crop of India are (1) improvements aimed at lowering the cost of cultivation by increasing the tonnage per acre which in turn will give a better return to the cultivator, and (2) raising the quality, e.g. by producing varieties suited to various localities, having higher sucrose-content and greater resistance to diseases and pests so that they may command higher price from the sugar manufacturers.* The work of improvement on an organised scale should be undertaken in areas adjoining the sugar mills and such area gradually extended. The development of reserved and gate-areas of the sugar mills are likely to give immediate benefit both to the manufacturer and to the cane-grower. The ultimate success of the sugar industry hinges upon its ability to produce better and higher yields of sugarcane per acre since sugarcane forms the raw material of the industry and accounts for over 52 per cent of the cost of production. Improvements achieved in this field will be of lasting value and result in the cheapening of the prices of sugar. The extension of the present cane-crushing season of about 4 months to at least 6 to 7 months in the year by encouraging and promoting the growth of early and late ripening varieties of cane suited to the climatic conditions of the various areas of production, will be of great help, if achieved.

Valuable Educational Effect of Cane-crop

Although the total area under cane is only about 4 million acres, out of 277 million acres cultivated in India, the importance of the sugarcane crop is out of all proportion to the small area which it occupies. It has a valuable educational effect on the cultivator.

* It is a pity that yet no suitable method has been evolved whereby the cultivator of superior quality of cane would get a premium, over the fixed minimum price of cane.

Sir John Russell, in his Report on the work of the Imperial Council of Agricultural Research in applying science to crop-production in India (1937) observed as follows: "The cultivator learns the advantages of modern varieties of crops, or fertilisers, of proper cultivation; the need to watch for plant diseases and to seek advice when he is in difficulties. The Agricultural Officer will have more chance of coming in touch with the sugarcane grower than he will with an ordinary small cultivator."

Imperial Council's Valuable Work for Sugar Industry

The Imperial Council of Agricultural Research as well as the Imperial Council of Sugar Technology at Cawnpore have done very valuable work in the field of development of the sugarcane crop. The programme of the Imperial Council's work can be stated under three heads: (a) the selection of cane better suited to the important cane-growing districts than the existing local varieties and improvement of their cultivation, (b) the improvement of local methods of making gur, and (c) the development of an advisory and research service for the factories. Investigations on cane breeding were done with considerable success at Coimbatore by Sir T. S. Venkatraman and that work is being now carried on, after his retirement, by other experts, like Mr. N. L. Dutt, who is in charge of the Coimbatore centre. For a detailed account of the work done so far, we would invite the attention of the readers to the small booklet entitled "A Summary of Some Practical Results of Sugarcane Research in India" published by the Imperial Council of Agricultural Research, published in 1940.

Improvement in Yield Possible in India

In spite of all the difficulties and handicaps peculiar to the Sugar Industry in India, there is no doubt that a good deal of improvement in yield per acre of sugarcane can be effected. The results at the Indian Research Stations are encouraging and from experiments at various places on factory farms, we find that higher yields have been obtained. Experiments conducted in the Deccan Canal areas and at Coimbatore and other places have also shown encouraging results. For instance, on the Ravalgaon Sugar Factory 50.5 tons of sugarcane per acre were produced compared with the 41.4 tons per acre by adopting only small improvements in cultivation, manuring and fighting the diseases. In a competition organised by the Maharashtra Chamber of Commerce in 1935-36 yields of 80 to 100 tons of cane per acre were obtained without any reduction of sugar. Experimental demonstrations in many other places have also confirmed the immense possibilities of improving the cane yields and the recovery percentages. As the present yields are very low in India, there is every possibility of increasing the yield by the use of rotation of crops and proper manuring. The supply of adequate manure is, therefore, an important problem and we welcome the efforts that the Government of India are making (in 1945) to establish a plant for the manufacture of ammonium sulphate in this country. We hope it will be possible for the factory to be set up near Dhanbad in Bihar to meet the needs of sugarcane areas (as also of crops) in respect of fertilisers.

Rotational Trials

The following-up of a cane crop too closely by another cane crop tends to exhaust the land and results in a low yield. Green-manuring the land with *San* previous to sowing the crop supplemented with additional manuring with nitrogen in the form of cake or ammonium sulphate at the time of planting has been generally found to be useful.

Ratooning

Ratooning is a subject on which there has been a good deal of controversy, particularly since there is some evidence that ratooning causes greater susceptibility to insect pests and other diseases. Canes differ to some extent in their performance as plant canes and ratoons. On the whole thin canes are better suited for ratooning than thick canes. The question of cane ratooning, which has acquired a disreputable significance, is receiving the attention of many experts and the problem has not been solved whether ratooning is good or bad. But the view seems to have been generally held that first ratooning is all right but subsequent ratooning systematically beyond one season is subject to attack by diseases easily and so does not find favour with the mills. Therefore, too much ratooning by ignorant cultivators in the hope of less work or better yield of crop should be prevented as far as possible by instructing them properly.

Position of the Industry in U. P. and Bihar

The high minimum prices for sugarcane now obtaining in U. P. and Bihar, although inadequate and unsatisfactory as they are compared with the prices obtainable from food crops during war-time, are certainly a considerable improvement over the previous year's prices. There is no doubt, however, that once the emergency period has gone, and inflation reduced, prices of commodities will come down in general and cane crop will also be affected. The present high prices may ultimately prove harmful in view of the fact that the industry would be driven out from U. P. and Bihar to some extent, by the stimulus it would necessarily give to production of sugar in other parts of the country at cheaper rates. We, therefore, invite the most serious consideration of the Governments of U. P. and Bihar, who are now controlling the industry in the provincial aspect to examine this matter and urge upon them the necessity of progressive development of improved methods of growth of cane resulting in reduction of cane costs, taking a far-sighted view of the matter, for the purpose of maintaining the predominant position of the industry and of the cultivators of cane in U. P. and Bihar. The high prices of cane, while certainly ameliorating the condition of the poor cultivators for the time being, have doubtless given a great stimulus to the development of the industry in other parts of the country and in the Indian States during the last six years. The U. P. and Bihar factories export 75 per cent of their output of sugar to other provinces and consequently the development of sugar mills in other provinces reduces the market for U. P. and Bihar. The U. P. and Bihar Governments should not forget that the main advantage of the industry in these two Provinces lies in the production of cane at a cheaper rate than in other Provinces, but if it is sought to be nullified by the fixation of higher cane prices, the levy of high cesses, and the imposition of other handicaps on the industry, the sugar industry may easily shift to or develop in other parts of India as a result of such avoidable stimulus. This will mean a great blow to the agriculturists in U. P. and Bihar where sugarcane is a cash crop of no mean size and significance. It will also adversely affect the position of the sugar industry in those provinces.

All-India Angle Essential in Development of the Industry

While the local and peculiar position of the sugar industry in U. P. and Bihar should be protected and conserved by suitable measures, in

any plans of further expansion, attention should be fixed upon the necessity of dispersal of the industry in other parts. The weaknesses revealed in the structure of the sugar industry as it exists at present and the difficulties of transport experienced during the war-time must serve as useful lessons in directing further development. We feel that the problem of development and planning of the sugar industry is a very serious one and unless the matter is viewed *not from a provincial angle as at present, but from an all-India angle*, and unless suitable measures are at once adopted for the regulation of the industry on an all-India basis, the future of the industry will be in jeopardy. The need is bound to be felt for an expansion of the sugar industry in other provinces, looking to the larger potential internal demand, following the introduction of new plans for improvement of the economic conditions of the people in India. When that comes about, other provinces must have their due share. Central control over the industry must imply central planning in the post-war period while taking into adequate account the special need and problems of any particular area. We, therefore, welcome the recent statement of the Government of India in their enunciation of post-war planning and inclusion of the sugar industry, along with other major industries, for unified central control, supervision and direction from the Government of India.

Cane Development in U. P. in 1943-44

A drive to organise the cane development work in U. P. in the light of the criticisms levelled from time to time against the scheme being worked out in 1938-39 was launched by the Provincial Cane Development Department. The plan which was formulated by Mr. R. L. Sethi, Cane Commissioner of the U. P. in 1940-41, sought to give a fillip to development work. Among other important items, the programme included the following items :—

- (1) Development of compact zones round factories ;
- (2) Selection and propagation of tested varieties ;
- (3) Provision of suitable manures and tried cultural methods ;
- (4) Zone trial ; and
- (5) Systematic regulation of seeds.

The Cane Development Scheme was first started towards the end of 1935 with the help of contribution from the Government of India. The U. P. Sugar Factories Control Act provided for the reservation and assignment of areas and since 1938 that system has been in vogue.

The Province was divided into six ranges consisting of 95 zones for the execution of the Cane Development Scheme. These zones extended to 18,783 villages comprising 1037.59 thousands acres of cane during the year 1943-44. A Cane Growers' Co-operative Society was formed in each zone and the departmental activities were generally carried through the union. The policy of intensive development of sugarcane within 10 miles radius of the factories was continued. The aim of the Department was to rationalise sugarcane production and its supplies by securing at least 75 per cent of the normal crush of the factories from their gate areas.

A special feature of the development plan was the intensive working of 50 acre blocks of cane at different centres in the reserved areas of the factories under the close supervision of the field staff. These blocks form the nucleus for further controlled development of gate areas and serve as nur-

series for the supply of improved seed in different localities. The practical result of the scheme in the form of increased total crush will be available only after some years have elapsed, but the immediate effect has been evident in the form of increased production at these centres due to closer supervision and better management. The increased yield in the development blocks in various ranges has varied from 50 per cent to 100 per cent over the average yield in other areas.

Another important feature of the development plan consisted in laying down zonal trials at 49 centres for selecting suitable varieties of cane suited to particular areas and for testing the suitability of the results of the researches carried out at cane research stations in the zones. These trials consisted of varietal, cultural and manurial experiments. The work in the villages was further carried out in the light of the indications obtained at these centres. Other activities in connection with development of cane consisted of introduction of suitable varieties of sugarcane, selection of disease-free seeds, proper inter-cultural operations, improvement in irrigation facilities and distribution of implements and manures.

The policy of the Department in the distribution of seed was the replacement of the older varieties by new varieties whose suitability had been thoroughly tested. The selection of the suitable varieties has been entrusted to Statutory Regional Sugarcane Committees. During the year 1943-44 due to the increased availability of seed cane with the growers, the Department was not called upon to handle as large quantities of seed as it used to do. The quantity of seed cane distributed through the Department was, therefore, 1,682,475 maunds as against 2,750,200 maunds in 1942-43. The fall was also due to difficulties of transport in part.

Increased cost and difficulties in getting the material hampered the progress of manure distribution. The quantity of manure distributed, therefore, considerably fell as compared to the previous year. The quantity distributed during the year was 51,746 maunds as against 93,496 maunds during the last year. 88 per cent of the total supplies of manure was made in the gate-area of the factories and the rest was given at the outstations.

The number of agricultural implements supplied by the Cane Development Unions also fell during the year as compared to 1942-43, the reasons being the same as in the case of manures. The implements distributed numbered 26,504 as against 27,349 in the previous year.

Weather conditions remained fairly satisfactory and the rainfall on the whole was adequate, though not evenly distributed. The germination and growth of the cane crop was also satisfactory particularly in the Western and Central parts of the Province. Insect pests were very few and no serious attack of cane Borer occurred. Slight attack by *Pyrilla* was detected in some areas which was readily controlled.

Working of Cane Co-operative Societies in U. P. in 1943-44

Co-operative societies for the cane growers have been organised to serve as the pivot of the Cane Development Scheme. Such societies now function in the reserved areas of the factories. All development and supply work is carried through them. The total number of such societies in the Province comes to 87 having 18,783 villages in their area of operation. The membership of these societies consists of 4,150 primaries and 7,36,057 individual members. The working capital, accumulated reserve and other funds

of these societies came to Rs. 56,70,054, Rs. 16,01,206 and Rs. 10,83,308 respectively. During the year these societies advanced loans to their members amounting to Rs. 16,83,308, 84 per cent of which was given for seed and other needs of cultivation, 9 per cent for the purchase of cattle and fodder and the rest was given for the payment of rent and revenue, repayment of old debts, etc.

Marketing of sugarcane of the members is the principal business of the Cane Development Unions. Out of the total reserved area of 1037.59 thousand acres, about 829.67 thousand acres was under the operation of the unions. The total supplies of cane by the societies amounted to 1138.40 lakh rupees. During the year under report there was enough cane in the reserved areas of the factories and out of the total estimated yield of 3275.78 lakhs maunds, the factories crushed 2019.66 lakh maunds. The percentage of the total crush to yield in the reserved areas was 62. The total income of societies out of commission earned on cane supplies and the total cost of management of the societies was Rs. 11,66,771 for the year.

Of the 71 Seed Stores maintained by the Cane Societies, 9 were transferred to the Agricultural Department. The quantity of seed distributed through the remaining 62 seed stores was 91,099 maunds of grain, the average per store being 1,469 maunds.

In all 3,000 miles of roads were either constructed or repaired and 260 culverts and 160 bridges were constructed. 73 Stud Bulls were distributed in various regions and 136 wells were dug and 26 bored and 472 wells repaired.

For development purposes the Province was divided into three main tracts: (1) The Western and Rohilkhand Range with headquarters at Bareilly, (2) Eastern Tract with headquarters at Gorakhpur and the Central Tract with headquarters at Lucknow. All the divisions were engaged in development work.

Working of the Central Sugarcane Research at Shahjahanpur in 1943-44

Valuable research work was also done at the Central Sugarcane Research Station of the Imperial Council at Shahjahanpur, its Sub-Stations and in Zonal Centres and Cultivators' Fields during the season 1943-44. About 3,000 seedlings were raised in the field from the seeds of the 3 crosses received from Coimbatore. From the Varietal Trials Co. 466, Co. 557 and C.S. 2 have been found promising. Detailed botanical studies of a large number of varieties again revealed that a greater population of silica cells and denticules is associated with resistance to top borer attack. Borers and Pyrilla are less in plant cane than in ratoons during April and March but plant cane is more attacked by stem borer with the advance of the season. Periodical analyses of soil nitrogen were carried on in the general manurial experiment where different oilcakes and molassic manures as well as ammonium sulphate were being tried. Physiological, mycological, and soil investigations were conducted. Intensive soil survey was continued in Gorakhpur district completing 24 important cane zones of the district. At Muzaffarnagar Varietal and Agronomical trials were conducted. At Kalai Farm (Aligarh) ratooning experiments were made and manuring of ratoons increased the average yield by nearly 415 maunds per acre.

Regarding manurial trials, ammonium sulphate, castor cake, groundnut cake, neem cake, and departmental mixture all gave good response. About

40 mill tests were conducted in the different mills in the Province. Co 313 gave the best performance in Rohilkhand, as also in Eastern Tracts.

Cane Development in Bihar in 1943-44

The Central Sugarcane Research Station at Pusa in Bihar also put in good work in cane development. Mr. K. L. Khanna, Sugarcane Specialist of the Bihar Government, has been good enough to prepare a note on the working of cane development from which the chief points are recorded. Co 313 continued to dominate the white sugar belt and covered roughly 75 per cent of the area. In South Bihar Co 331 occupied about 83 per cent of the total area under cane and Co. 313 only about 15 per cent as it suited comparatively light soils. Due to deficient monsoon and its faulty distribution during the period of growth of the crop, and inadequate moisture conditions, particularly in light soils, both before and during the monsoon, the response to fertilization was poorer during 1943-44 than the previous three years being only 20 maunds against the average of 86 maunds.

A further step towards stabilising production in the cane belt was initiation of a 'Watch and Ward Service' to keep under check major pests and diseases. This kept the station in constant touch with cultivators and the entire environment and made possible immediate effective measures against a pest or disease assuming serious proportions. A quarantine area was being developed where all seedlings whether raised locally or introduced from elsewhere were regularly subjected to resistance tests. The soil service initiated 4 years ago has been gradually developing into an extension service in which each factory collaborated with the station by deputing one of its shift chemists in the off-season to carry out soil survey in its reserved area under the supervision of the station.

Cane-Growers' Co-operative Societies in Bihar

During the year under review the Cane Development Staff as usual took advantage of the organisation of the growers into societies to do as much development work as possible amongst society members. There were over 1,500 Cane-growers' Co-operative Societies in existence. Over 3,000 demonstration plots were laid out in members' fields, in order to demonstrate better and cheaper methods of manuring and such other improvements as the Agricultural Department had to offer.

Paramount need for Research Work Emphasised

The main problem of the sugar industry has been, and still remains, agricultural. Until the average yield of cane per acre is increased to about thrice its present average yield of 16 tons per acre, the industry cannot be said to have been placed on a stable basis. The production of improved varieties of cane having higher sucrose-content and yielding heavier crops, and their proper cultivation without affecting the fertility of the soil are questions of primary importance. Valuable research work is being done at the experimental farms and the Imperial Council of Agricultural Research Station at Coimbatore. Sir T. S. Venkatraman did a signal service for the development of improved sugarcane breeds at Coimbatore and his researches have produced far-reaching improvements in cane cultivation. Mention must also be made in this connection of the research work carried on in Anakapalle, Padegaon, Dacca, Shahjahanpur, Pusa, Izzatnagar,

Mysore, Hyderabad and many other places for breeding thick canes, for eradicating pests on sugarcane and for improvement in yield of cane per acre. These schemes of improvement are periodically reviewed by the Council of Agricultural Research. Now that the Indian Central Sugarcane Committee has been set up since 1944, it will, we hope, assume the responsibility directly for all this work of research and improvement and co-ordinate it. At the same time, we suggest that it should try to harmonise all the various activities and make the work of the Provincial Governments and States fit in the general scheme of all-India research work carried on from year to year. We feel it would be very helpful if the Government of India or the Indian Central Sugarcane Committee begin publishing from time to time reports on the progress of various schemes and bring them to the notice of the industry in order to enable it to know and appreciate what is being done in this connection.

Central Sugarcane Committee to Undertake Research and Development

With the constitution of the Central Sugarcane Committee in 1944, the demand of the industry for a central non-official body to undertake the work of development and improvement of sugarcane crop has at last been conceded. We feel that the Committee should examine the present state of affairs and on the basis of it formulate and carry out bold and vigorous measures of research and all-round development of the cultivation of sugarcane. As part of the excise duty collected on sugar would be placed at the disposal of the Committee, it would not, perhaps, be handicapped for want of funds in its work. We feel sure that this important task will be taken up without delay. Indications of its will to pursue a determined policy are not wanting. The Sub-Committee appointed by the Indian Central Sugarcane Committee at its second meeting in February, 1945, will, we trust, soon place its report before the public and recommend the adoption of necessary measures for such development.

Proceedings of the Inaugural Meeting of the Indian Central Sugarcane Committee, held in November 1944 and of the Meeting held in August 1945

The inaugural meeting of the Indian Central Sugarcane Committee was held at New Delhi on the 29th November 1944. The Committee considered and adopted the draft Memorandum of Association, etc.

The headquarters of the Committee have been fixed at Delhi and Lala Shankar Lal has been elected as its first Vice-President.

The Committee constituted a number of Sub-Committees, namely, the Finance Sub-Committee, the Local Sub-Committee, the Agricultural Research Sub-Committee, the Technological Sub-Committee, the Expert Sub-Committee, the Sugar Standards Sub-Committee and the Gur and Khand-sari Sub-Committee. Of these Sub-Committees the Finance Sub-Committee will be the main Executive Body and will have all the powers of the full Committee in regard to the disposal of funds. The other Sub-Committees will be advisory bodies to the main Committee.

At the meetings of this Committee, held in August 1945, it was decided to establish an All-India Sugar Technological Institute. The site is yet to be decided.

Improvement in Cultivation most Essential

The problem of the industry at present is mainly the problem of effecting improvements in the cultivation of sugarcane. It must be known, understood and clearly realised that India will not be able to sell sugar on equal terms in the world markets until the price of cane is brought down to about 3 annas per maund. The industry cannot afford to rest on its past oars and expect the continuance of high protection for an indefinitely long period. If it is to compete successfully on equal terms with other countries and maintain its complete hold unimpaired over the home market, it is necessary to reduce costs of cultivation and produce sugarcane at a very low cost. Strenuous efforts should be made whereby the cultivator can produce sugarcane at a cost of, say, 3 annas per maund, by intensive cultivation of land, by the growth of cane of heavy yield, etc., by the proper rotation of crops, by irrigation, manuring and utilisation of improved methods of cultivation of soil. Just as manufacturing efficiency is no doubt important, agricultural efficiency and the percentage of sucrose in cane are still more essential. The quality of the cane and the yield per acre need therefore to be very much improved in India, and as early as possible.

Dr. Burns' Targets for Cane Yield

In his note on the "Technological Possibilities of Agricultural Development in India", Dr. Burns, formerly Agricultural Commissioner to the Government of India and lately, Officer on Special Duty in the Education, Health and Lands Department, has sought to fix the limits of increase in the production of agricultural commodities such as cereals, oilseeds, cane, cotton, jute, tobacco, vegetables, etc. He examined the question: how much can India speed up her production in the near future making the best of the present day methods of cultivation and indigenous resources and working within the limitations imposed by the social structure and political conditions, in India. In his opinion so far as cane yield is concerned it can be increased from the present average of 15 tons per acre to 30 to 55 tons per acre by the employment of all available resources in the most useful way. It will be seen that the possibilities of the yields envisaged by him in his monograph will roughly correspond to the yield in Java where the cost of production of cane is almost the lowest in the world.

The methods suggested for reaching the increased targets are better manures, improved varieties of seeds and implements, insect control, crop rotation, more scientific cultivation and conservation and maximum utilisation of available fertilisers, water, labour, soil and livestock. The note prepared by Dr. Burns together with the one on the economic background of post-war agricultural policy prepared by Sir Theodore Gregory, Economic Adviser to the Government of India is designed to form the basis of an all-India policy for the post-war agricultural development schemes. Therefore, the target of Dr. Burns in the case of sugarcane development will be of immediate practical value in assessing the possibilities for improvement. We hope that the Government of India and the Agricultural Departments will do their best to increase the yield of sugarcane per acre, as a systematic policy.

On the basis of numerous experiments conducted at the Sugarcane Farm at Walchandnagar, Mr. Kartar Singh, Assistant Director of Agriculture, Punjab, contributed an interesting article to the *Indian Farming* in May, 1944 detailing the immense possibilities of cultivation of improved

cane varieties in India. The article refers to sugarcane cultivation under particular conditions and says that the highly successful results obtained makes one wonder at "Industrialisation of Agriculture" even in India. (See *Indian Farming* May, 1944).

Work of the Imperial Institute of Sugar Technology

The Government of India started the Imperial Institute of Sugar Technology at Cawnpore, for a period of five years, from 1st October, 1936. The Sugar Section of the Butler Technological Institute was amalgamated and taken over by the Imperial Institute of Sugar Technology. The management of the Institute was under the direction of the Imperial Council of Agricultural Research. The Institute undertakes research work on (a) problems of sugar technology in general and sugar factories in India in particular; (b) utilisation of the by-products of the industry; (c) testing and development of cane to suit factory conditions; and (d) general problems of sugar engineering and chemistry. With the constitution of the Sugarcane Committee the Institute will go under the management of the Committee which will be responsible for the future functioning of the Institute.

In addition to the above functions, the Institute provides adequate facilities for the training of students in all branches of sugar technology. It also provides sugar trade information services, bureau of sugar standards, and an employment bureau. It is designed to serve the needs of the industry in technical, commercial and statistical matters.

Cost of Cultivation of Cane and Fair Price of Cane

In the year 1933, the Imperial Council of Agricultural Research instituted an enquiry throughout India to ascertain the cost of cultivation of sugarcane and cotton crops of India. The results of their enquiry were published dealing with the cost of cane cultivation in various provinces. The Tariff Board of 1937 also examined the cost of cultivation in the principal sugar-producing areas. They came to the conclusion that 0-3-7 per maund was a fair estimate of the cost of cultivation in U. P., 0-3-4 in Bihar, 0-5-0 per maund in the Punjab, 0-7-0 in Bengal, 0-5-10 in Bombay, and 0-5-5 in Madras. The Tariff Board also observed that allowing for the same climatic advantages, the possibilities of a general improvement in tonnage and quality were greater in the South than in the North, and an equalisation of the cost of production is feasible at no distant date. For the purpose of estimating an all-India figure, however, the Tariff Board observed that greater weight should be given to the cost of cultivation in the United Provinces and Bihar, the main sugar-producing areas. Taking all points into account, the Tariff Board considered that 0-3-9 per maund might be taken as a reasonable estimate for the cost of cultivation for the whole of India. The Tariff Board further considered as to what would be reckoned a reasonable margin of profit to give the cultivator and arrived at the conclusion that six pies per maund on an estimated cost of 0-3-9 was in their opinion a fair figure. Therefore, the Tariff Board estimated 0-4-3 per maund as the fair price for cane.

As this data has now become out of date and obsolete, we suggest that an enquiry should now be conducted to ascertain the present costs, in order to enable fair prices of cane being fixed.

Sir Shri Ram's Plan for Lower Cost of Sugar and Cane

In this connection it will be of interest to go into the details of a plan which Sir Shri Ram submitted for consideration as early as 1940 to reduce the prices of sugar as well as sugarcane in India.

The war has brought into existence various abnormal factors and the general price structure, consequent upon inflation and scarcity, has almost skyrocketed. Naturally sugar and sugarcane, in common with other commodity prices have also attained high levels and cane prices are now very attractive. The protection afforded to the industry was formally extended till March 31, 1946 and it will expire unless it is renewed again. Although due to war there is no external competition, with the revival of trade in the post-war period, competition might come again. According to the original programme, protection was given for 15 years and a Tariff Board should have been constituted in 1942 to go into the question of the quantum of protection necessary for the future—the idea being that protection should be gradually reduced and finally done away with in course of time. But as war conditions did not permit the constitution of a Tariff Board in 1942, Government was obliged to renew protection for a temporary period. The whole question will have to be gone into, now that the war is over. But we cannot lose sight of the fact that this is after all a temporary phase and the consensus of opinion is that protection will have to be gradually reduced. For this, the industry must prepare itself from now on.

In this connection the plan put before the Governments of U. P. and Bihar by Sir Shri Ram in 1940 needs a reference. Although the schedule of prices appended to his plan have become antiquated and outdated by war conditions, the idea of planning a gradual climb-down in the cost of manufacture of sugar and sugarcane is the essence of the scheme. Sir Shri Ram outlined a plan according to which sugar price could be reduced from a level of Rs. 9 per maund in 1939-40 to a level of Rs. 6 per maund within seven years by gradual reductions caused by improvement of cane crop and manufacturing technique. Likewise the cost manufacture was sought to be brought down from Rs. 2 to Rs. 1-7-0 and the mill profits from 0-13-0 annas to 0-8-0 annas per maund. The cane price including transport charges, commission, cess, etc. was sought to be reduced from 0-6-9 to 0-4-0 per maund by steps. Unless in the post-war period the present cane prices in U. P. and Bihar are considerably reduced so low as 3 or 4 annas per maund and sugar can be sold at Rs. 6 per maund which is the lowest level at which Java sugar cannot be imported in competition, the prospects for the future are gloomy indeed. There can be no doubt that such reduction can be effected by a planned drive on the agricultural as well as manufacturing fronts of the sugar industry. Sir Shri Ram's plan based on three main points, viz. (1) a gradual reduction of cost of production of sugar from year to year till the end of protection period, (2) the formulation by the Governments of U. P. and Bihar of a progressive programme of cane development so as to increase the yield of cane per acre as well as the percentage of recovery, and (3) reduction in mill profits and the maintenance of excise duty on sugar at Rs. 1-8-0 per maund, is worthy of close examination, coming as it comes from a practical industrialist.

Marketing of Sugar—Report Published in 1943

The question of marketing of sugar and sugarcane was discussed at the meeting of the Sugar Committee of the Imperial Council of Agricultural Research on the 3rd May 1937, at Simla and such survey was undertaken under the guidance of the Agricultural Marketing Adviser to the Government of India, with a view to assist in placing the sugar industry on a sound footing. The Report was published in 1943. It has comprehensively dealt with the marketing problems and made useful suggestions.

Stability of Agricultural Prices Committee and Central Land Utilisation Board appointed in 1945

The Government of India with a view to investigating and recommending the adoption of suitable measures to maintain the stability of agricultural prices and proper marketing facilities for principal crops, set up a Committee under the chairmanship of Sir V. T. Krishnamachari early in 1945. The Committee of Marketing consists of Sir V. T. Krishnamachari (Chairman); the Hon. Mr. Hossain Imam, Mr. Fazal I. Rahimtoola, Rao Bahadur N. R. Samiappa Mudaliar, M.L.C., Dr. L. C. Jain, Mr. Roger Thomas, Sir Pheroze Kharegal (representative of Education, Health and Lands Department), Sir Theodore Gregory (representing the Commerce Department), Dr. V. K. R. V. Rao (Food Department), Mr. C. N. Vakil (Planning and Development Department), Mr. B. K. Madan, (representative of the Reserve Bank of India) and one nominee of the Chamber of Princes. Mr. W. R. Natu, (Statistical Adviser to the Government of India), will act as Secretary to the Committee.

The terms of reference to the Committee are to consider :—

- (a) The principles, on which producers' prices of agricultural produce, whether crops grown for industrial purposes or for food, or the produce of animal husbandry of all descriptions, should be fixed.
- (b) The means by which such prices can be made effective and an assured market be provided, and to make recommendations.

The Committee will report on its terms of reference in relation to conditions in the post-war period (1) in which a substantial measure of Government control over the procurement, distribution and prices of commodities exists, and (2) in which such control has been relaxed or abolished and normal trade and market conditions have been restored.

The Government of India also appointed a Committee to deal with the question of establishing a Central Land Utilisation Board. The Board will have to plan, and co-ordinate work on an all-India basis, in respect of soil erosion, forestry, land reclamation, irrigation works and other forms of land improvement. Sir N. Gopalaswami Iyengar is the Chairman of this Committee.

Factories Definitely Prefer Gate-cane to Rail-borne Cane

Generally speaking, cane is transported to factories by carts and lorries within a radius of about 15 miles from the factories. The area near the mills is termed as gate-cane area. Factories prefer gate-cane to rail-borne cane for various reasons including its freshness, uniformity of supply, less dependence on wagons which sometimes arrive late, and less handling.

We have no doubt that with the improvements of roads and communications, larger and larger quantities of cane will be brought by carts and delivered to factories as gate-cane. Where gate-cane is not available the factories have to obtain their requirements of cane from long distances by rail. The average distance of cane brought by rail may be taken as 15 miles and the maximum at about 150 miles. Unfortunately the problem of cane supplies to mills has considerably been affected by the lack of transport facilities during the last two or three years. The restriction of 10 miles and 25 miles radius of the mills also adversely hit some mills which used to get their supplies by rail. The transport problem of cane therefore continues to be serious even now. We suggest that some improvement must be brought about and factories, should be enabled to get their cane supplies also by rail (due consideration of the general transport position being of course, taken into account), with the object of ensuring full supplies of cane required by the mills.

By-Product Industries

We have already dealt with the need for the early establishment of the auxiliary and by-product industries of sugar manufacture. Molasses and bagasse, the two main by-products of the industry, should be put to more economical use. Molasses should be used for power alcohol in preference to rectified spirit and power alcohol should be made use of with petrol as mixture. We have dealt with power alcohol production previously at length. Plastics, pressed boards, wrapping papers, straw-board, rayon, etc. can also be made from bagasse which is now being wasted as fuel.

Problem of Marketing Sugar in India

Now that central control over production, distribution, prices and other aspects of sugar industry has been assumed, the problem of sugar and gur marketing does not seem to present any insurmountable difficulties. So long as the potential demand is very large in relation to production as it is at present, marketing will be easy. But in normal times the problem of marketing of sugar was not so easy as it appears to be now. More than 75 per cent of the sugar produced in India is produced in U. P. and Bihar and this production is far in excess of the internal consumption of these provinces which should necessarily be exported to other provinces. This situation calls for scientific marketing of sugar in the various parts of the country in a manner which would avoid over-lapping, eliminate unhealthy competition, minimise the freight charges and also eliminate import of foreign sugar at the ports and keep the entire Indian market for industry. The Indian Sugar Syndicate was formed for this important purpose and it functioned very well until its powers in respect of distribution were taken over by the Government when control was assumed in 1942. We earnestly hope that the marketing methods will be carefully studied and the internal markets developed well, as soon as normal conditions return.

We also feel that the production of sugar in the country should be so regulated as would leave a normal carry-over varying between 2 to 2½ lakh tons at the end of each season. The production of cane should also be regulated evenly with this end in view.

Consumption in Provinces

The U. P. and Bihar only consume about 20 per cent of their normal output per year and export the rest to other provinces and areas. Bombay and Punjab which produce only 7 per cent of total sugar consume largely sugar imported from U. P. and Bihar. The *per capita* consumption varies widely in the provinces, just as consumption varies from urban to rural areas. Bombay is the province where *per capita* consumption is the highest generally and the Indian States are the lowest in such consumption. The variation in consumption in different provinces is due to several factors. The Report on Marketing of Sugar contains very interesting observations regarding consumption of sugar by various provinces, classes, and for various purposes. (Also see Table No. 34, p. xvi in the "Sugar Industry at a Glance").

Bureau of Sugar Standards and Qualitative Analysis of Indian Sugar for 1944

With effect from the 1st of April, 1940, the Bureau of Sugar Standards became an integral part of the Imperial Institute of Sugar Technology. The Bureau continues to (1) prepare and supply the Indian Sugar Standards, (2) publish an annual review dealing with the quality of Indian sugars and giving comparative figures for competitive foreign sugars, and (3) maintain a museum of samples of sugar and sugar products.

In the production of various grades of sugar by the mills during 1943-44, the conditions of the previous year existed as before and due to lack of sulphur, lime, and other chemicals, maintenance of higher standards became difficult. All the sugars produced from A28 to G19 can be classified into three big groups, namely, the "Bold", the "Middle" and the "Inferior". Each group has got its sub-divisions according to grade. In the Bold group are included A, B and C grains; in the "Middle" group D, E, F and G and in the "Inferior" group the same grains as in the "Middle" group but with inferior colour and qualities. This analysis gives a rough picture of the sugars produced during 1943-44.

Indian Sugar Syndicate's Activities in 1944

In the previous *Annals* we have dealt with circumstances under which the Indian Sugar Syndicate, the marketing organisation of the Sugar mills in U. P. and Bihar, was obliged to curtail its activities to the minimum after the enforcement of sugar control and assumption by Government of distribution of sugar. Among the numerous activities of the Syndicate during the year, mention must be made of its influence and readiness to help the ventilation of any grievances of mills. It stood out for the rights of its members whenever the control measures rode rough shod over their elementary rights as producers. The Syndicate served as a clearing house for all complaints of the factories and in many cases relief was obtained by proper representation.

The Syndicate made an attempt to take on itself the 'burden of distribution of sugar in the province of U. P. at least, serving in this respect as an executive of the Provincial Sugar Controller. But the Government did not seem willing to entrust the function to the Syndicate and so spurned the offer. Had the Syndicate been entrusted with this task within the Province, its experience, organisation and resources could have been pooled and utilised and a great load of responsibility should have been transferred

from the shoulders of the Government to the Syndicate. The short-sightedness of the Government in this respect cannot but be deplored by all interests concerned with the sugar trade. The Syndicate, however, is keeping itself ready to take over again the role of marketing organisation of its members as soon as the war-time control now in force is withdrawn.

Transport and Co-operation of Railways

The development of the sugar industry has called for an effective co-operation on the part of railways, inland steamships, and other means of transport, in order to find markets at distant ports and internal centres for Indian sugar. Although such co-operation has been slowly forthcoming and various transport arrangements have been made in the past, the war-time restrictions and shortage of wagons have come in the way. Adequate provision of transport facilities is now a difficult problem and many restrictions on movement of cane and sugar have been imposed to curtail the volume of traffic on railways. Facilities in the shape of sidings, and handling of this traffic and concessional rates in freight, wherever possible, should be made available for sugar mills. While no special favour will now be asked from railway authorities, co-operation of railways in retaining distant port-markets for Indian sugar as against imported foreign sugar should be assured.

Road Development in Factory Areas and Other Facilities

For increasing the facilities and communications for easy transport of sugarcane by lorry, bullock-cart, or other means, it is essential to effect improvement of roads and also to make new roads. With the improvements of roads, factories need not depend much upon rail-borne cane and can extend the area of their gate-cane by making use of lorries owned and managed by them. Alternately bullock-carts can also be made use of to such extent as is possible. Therefore road development in factory areas is a great necessity and it is a pity that so far it has been neglected by the authorities and the mills too. The post-war road planning measures have now brought attention to this problem. That road development in factory areas is urgently called for goes without saying. An economical and satisfactory development of roads by the Government in the reserved areas of the factories under the supervision and advice of the mills should be productive of good results. The work must be undertaken on the right lines with the co-operation of the mills by the Government itself. If the mills are asked to maintain and build roads, due to lack of technical experience and funds, no progress can be achieved. If on the other hand Government take it up and co-ordinate this with the general plans of road development it will yield great benefit to the industry. Provision of bullock-carts of improved design with rubber tyres, if necessary, should be introduced and greater use made of motor transport for supplies of cane.

Expenditure on Research and Investigation Benefits All

We have already referred to the paramount necessity of Research work and spending money on it liberally. Expenditure in this respect should be regarded by the mills and the Government as profitable investment which will ultimately pay itself many times. We urge upon the Government of India, the U. P. and Bihar Governments to make sufficient allocations of money for this useful and important work. The Imperial Council

of Agricultural Research assessed the total value due to increase in improvement of cane at 2½ crores of rupees per annum. We feel that at least a sum of Rs. 50 lakhs a year should be spent for research work by all Governments put together.

Bihar Labour Enquiry Committee

In 1938 the Bihar Government appointed a Labour Enquiry Committee for investigating into the problems relating to industrial labour in Bihar and to make recommendations for improvement in conditions of wages, employment, work, etc. Dr. Rajendra Prasad was the Chairman and Mr. M. P. Gandhi, the Author of this *Annual*, was one of the members. The Committee submitted a Report on conditions of labour but no marked progress was made in implementing the recommendations. Proposals were made, however, in 1945 by Bihar Government for ensuring a minimum wage of Rs. 20 per month in sugar factories.

Conditions of Labour in Sugar Industry in U. P. and Bihar

The sugar industry is a seasonal one. It is scattered over the country-side in the province and a large number of factories are situated in small towns and villages. Unlike other industries, it is not concentrated in big industrial centres. The labour employed in sugar factories is mostly drawn from the agricultural classes living in the neighbouring villages. Therefore labour conditions in sugar industry differ from those of other industries.

Recruitment of labour, as a general practice, is made direct by the General Manager or under his supervision through the Heads of Departments, viz. the Chief Chemist, the Chief Engineer, the Cane Manager, or the Cane Superintendent. There is usually very little of contract work in this industry. It is confined to the unloading of cane or loading of sugar bags. The contract work here is of the nature of group-piece-work in which a mate or a sirdar undertakes to do a job on a piece rate, the payment for which is divided among his co-workers according to their share of work.

The normal working season consists of about 130 days in a year. At the end of the working season about 90 per cent of the labour force, mostly unskilled workers, are discharged and at the beginning of the following season they are, as a general practice, re-engaged on their old rates of pay. But in some cases this practice is not followed. A very small number of workers, especially skilled ones, are retained in the off-season for repairing and overhauling machineries. This number varies from factory to factory and even for the same factory from year to year. No off-season allowance is paid to the discharged workers. Some of the factories give off-season allowance to the skilled workers discharged at the end of the crushing season at one-half of their wages.

Working hours and payment for overtime are in accordance with the Factories Act.

Wage rates paid to workers vary from factory to factory. The Bihar Labour Enquiry Committee recommended a minimum wage of Rs. 12 per month in 1940. This recommendation has not been adopted by the factories except by one or two. Recently the sugar factories have, on the intervention of the Commissioner of Labour, agreed to pay a minimum basic

wage and Dearness Allowance of 0-9-0 per day (0-6-0 basic wage plus 0-3-0 Dearness Allowance) to their workers.

Most factories have provided some housing for their workers, especially for those who come from a distance. But such housing is neither sufficient nor in all cases suitable. Some of the factories provide one or more of the following to their workers free, viz. kerosene oil and fuel, chowkis and buckets. Some of them pay bonus. The amount varies from 15 days to 1 month's wages.

Medical facilities are lacking in sugar factories. Some employers depend on the doctors and dispensaries of the District Boards. Some pay the doctors an allowance for looking after the factory employees; while a few make a monthly or annual contribution to the District Board hospitals. There are other factories which have not done anything at all.

The workers employed in sugar factories are disorganised and illiterate. They are not even aware of the provisions of the Labour Acts. A few Labour Unions have been established in some sugar factories of Saran. Employers in general are against the growth and development of trade unions in their factories.

In 1945, the Bihar Government asked the factories to pay a minimum wage of Rs. 20 per month. The factories have replied that unless sugar prices are increased, to compensate them for such additional expenditure, they can hardly do so, and have suggested that the Government should approach the Sugar Controller with a request to consider this matter when fixing prices of sugar for 1945-46.

Future of the Industry Bound up with Increasing Yield of Cane

The future of the sugar industry depends upon the vigour with which research work is carried on in its various complex problems—agricultural, chemical and technological. The success of the industry is dependent on reduced costs of cultivation of cane by increasing yield per acre from 15 tons to nearly 40 to 50 tons per acre. This will enable the industry to stand in competition of Java, Cuba and Philippines.

Subsidiary Industries Need Development

Efforts should be made to develop subsidiary industries like confectionery, syrups, etc. We feel that if suitable assistance is given to the industry, such things like confectioneries, biscuits, sweets, toffees, chocolates, etc. can be manufactured in this country and these new lines of production can be developed advantageously.

India Free to Export Sugar

Reference has already been made for the termination of the International Sugar Agreement of 1937 and India's non-participation in it since March 1942. The restriction for export of sugar by sea to other countries is no longer there and so barring the internal difficulties of short production and enormous demand for consumption, there is no ban or prohibition for export of sugar from India. Since the war is now over, this freedom to export in the immediate post-war period will considerably help India to secure a safe market in the Middle and Near East and build up an export market. It may be hoped that the temporary eclipse of Java and Philip-

piners from the field will be of help to the Indian sugar industry in gaining some fresh markets for sugar.

Post-war Reconstruction Programmes for Sugar Industry

Planning is now the topic of burning interest in India and everywhere there is a talk of economic planning. In this general scheme, the sugar industry will doubtless be included. The Reconstruction Committee of the Viceroy's Executive Committee as well as the Planning and Development Department have been putting forth copious literature on planning of various industries. From the foregoing study of the industry, the need for reorganisation, consolidation and development of sugar industry is no less vital at the present time and we have stated that this should be done on an all-India basis, keeping in mind the special needs of various units. A long-term policy of development and a short-term policy of meeting the immediate needs of the industry must be formulated and work carried out with the help of the authorities, Central and Provincial, by the industry. This is an urgent task of post-war reconstruction and it involves within itself the stage of transition from war to peace economy.

Industrial Panel on Sugar, Power Alcohol and Yeast Constituted in 1945

In pursuance of their general policy of industrial development plans, the Planning and Development Department of the Government of India have announced the appointment of a special panel to report on development of the sugar industry. The Department announced the setting up of 29 separate panels for various industries or group of industries. Each panel is expected to go into the question of its development, in full consultation with Provincial Industrial Committees and submit a final report to the Planning Department.

In the case of sugar, power alcohol, and yeast, the *personnel* of the panel consists of, Sir Shri Ram (Chairman), Messrs. R. C. Srivastava, Lalchand Hirachand, M. B. Amin, Vishnu Sahay, S. M. Dhar, W. H. A. Webb and Dr. B. C. Guha.

The Report of the panel is expected to cover the plan for industrial development of this industry for the first five-year period after the war. In making the Report each panel will be given a definite target to be aimed at during the period.

We welcome enthusiastically the constitution of a separate panel for this second biggest national industry and confidently hope that it will go into the matter fully and issue a report dealing with the necessity of the reorganisation and development of the sugar industry in India, to at least twice its present size, within a period of years.

Government of India's Statement of Industrial Policy

The Hon'ble Sir Ardeshir Dalal, Planning and Development Member made an important statement on the Industrial Policy of the Government of India in April, 1945, wherein he stated that major industries would be brought under control and supervision of the Central Government. He also stated that it would be possible that some of the industries might be taken by the Government itself for working on modern lines. Whatever be the controversy about the nationalisation of industries, there can be no two opinions that industrial policy on major development should be centralised

and controlled from one place in the interests of all parts and above all, in the interests of the whole of the country taken as a single economic entity. We, therefore, heartily welcome the central control of industrial planning and initiation of major policies. In fact we have been urging for the acceptance of that view since long.

So far as sugar industry is concerned, all-India control and planning is to be welcomed in the best interests of the whole country. While the position of U. P. and Bihar as predominant sugar producing areas should be maintained and adequately protected, the need for co-ordinated development in other provinces in new expansions and extensions of the mills cannot be overlooked. Therefore harmony and co-ordination between the various units should be brought about by an all-India control.

Long-term and Short-term Planning Policy

The need for having two sets of programmes suited to the varied calls of the industry cannot be discounted. Immediate augmentation of output of sugar by supply of sulphur, chemicals, lime, fuel, mill-stores, etc. should be aimed at to overcome any temporary difficulties and to give a fillip to the industry. Parts, and machine tools should be arranged under priority import list and sufficient transport facilities should be provided. Cane prices should be adjusted to make them as attractive, if not more, and remunerative to cultivators as from cultivation of other food crops. Such of these small measures as are possible should be taken to increase production at once with the existing capacity of the mills.

A long-term policy based on a study of the industry in India in the background of world sugar conditions should be evolved and worked out. Provinces of Bengal, Bombay, Madras and Indian States should be allowed to have a more equitable share in the development of new mills. All these problems must be considered in a long-term policy.

Some Immediate Problems Facing the Industry

Now that war in Europe is over the present is a particularly opportune moment for planning for peace-time. The potential capacity of the industry must be fully turned to increased output of sugar. Indian sugar is finding its place in outside markets. We may refer briefly to some important problems which are now confronting the industry and try to see how best they can be impressed upon the serious attention of the industrialist and Government. Among the many problems, the following are worthy of special mention :—

- (1) Improvement of the quality of cane and the average yield per acre.
- (2) Eradication of diseases and pests.
- (3) Reduction of the cost of production of cane.
- (4) Development of improved varieties of cane in Reserved areas of factories and adoption of early ripening, and late ripening canes to make the duration of crushing season longer.
- (5) Provision of adequate transport and supply of chemicals and stores, etc., and
- (6) Standardisation of quality sugar and improvements therein.

The sugar industry cannot afford to rest on its oars and should do everything in its power to decrease costs and increase output, now.

We might repeat with all the emphasis at our command that the ultimate success of the industry will depend on the harmony and co-operation amongst the various interests concerned, viz. the industrialists, cane growers, the various local Governments and the consumers. We cherish the hope that in appreciation of the clear definite and tangible advantages which flow from the establishment of this great industry in which about Rs. 33 crores of our capital is employed and no less than 20 million cultivators, about 3,000 university graduates, 100 000 unskilled labour, and many merchants, transport agencies and other people are engaged, the industry will be helped by the State in every way to attain a high degree of efficiency before long, and establish itself on a firm footing.

Sugar Production in U.K. and Other Countries

It was pointed out in the previous *Annals* that the outbreak of the war and scarcity of shipping tonnage had affected the consumption of sugar in Britain adversely. It was also pointed out that due to the same difficulties the *per capita* consumption in United Kingdom had declined to 50 lbs. per annum from 121 lbs. and that strict rationing was introduced. For political and military reasons, many of the European countries had to develop and depend upon the output of beet sugar as imports from distant places became difficult. Sugar rationing in U.K. has been primarily due to the difficulties in regard to shipping and the urgent need to conserve shipping for vital war needs.

The United Kingdom's annual requirements for direct consumption, for manufactures, and other uses are approximately 1.4 million tons now compared with about 2.25 million tons in the pre-war period. Of this total about 500,000 tons is expected to be supplied by home-grown beet sugar and the balance of 900,000 tons being imported from abroad.

The spread of the Japanese war in 1941-42 resulted in the loss of Java, Philippines and other sugar producing islands and even Australia which used to export its surplus to U.K. was cut off from fear of enemy attack from the other countries. In Australia the production of sugar during 1942-43 is estimated at 655,000 tons as against 748,000 tons in the preceding season, and in 1943-44, at 6,25,000 tons.

India the Biggest Producer in the Empire and the World

By sheer force of circumstances, this country is now getting the recognition it ought to have received long ago. The loss of Philippines sugar, the loss of Java and the remoteness of Australia have increased the importance of Indian sugar for defence and strategic purposes of war. Efforts are now being made to maximise production of sugar in India. Total production in India in 1943-44 exceeded 12 lakh tons and this is a very creditable achievement. In the British Empire India is the largest sugar producing country now. All this remarkable transformation has taken place in a few years.

According to an analysis of the sugar trade by Mr. Alice Mullen and the U. S. Consul in Calcutta Mr. Charles Brookhary, published in the official organ of the U. S. A., *Foreign Commercial Weekly* of New York, India is fast emerging into a factor in the world sugar trade. "If the present developments continue, India may eventually become a factor in the world sugar market," so runs their opinion. Three reasons have been advanced by them

in support of this contention. Firstly, Indian Sugar Industry has increased white sugar production despite war-time handicaps such as shortage of sulphur and other materials; secondly, India is one of the biggest sugarcane producing countries in the world; and thirdly, during the official year ended March 31, 1943 she exported sugar valued at Rs. 1,10,00,000 mostly to Persian Gulf areas and Ceylon.

Thus the undoubted rise of Indian sugar industry into prominence in the British Empire and in the world is an important development that has been brought over in a short time. This is a happy augury for the future of the industry in this country.

World Production and Consumption of Sugar

Sharp changes in the production of sugar and consumption in individual countries have been noticeable during the year due to a number of abnormal factors. From the latest information received by the Director of Imperial Institute of Sugar Technology total world production of sugar, both cane and beet, during 1944-45 as estimated by Messrs. Willet & Gray, amounted to 19,460,000 tons of which about 17,000,000 tons is cane sugar and the rest beet sugar, as compared with 20,000,000 tons in the preceding season. Production of beet sugar has increased a little over that of the previous year.

In Cuba, the sugar crop of 1945 amounted to 5,000,000 short tons (or 4,464,000 tons). In Louisiana (U. S. A.) the latest estimate of cane production during 1944-45 is placed at about 3,80,000 short tons.

In the Hawaiian Islands, the latest estimate of the production of sugar for 1943-44 is placed at 880,000 tons, as against 791,000 tons in the preceding year, and the same is the estimate for 1944-45.

In Porto Rico, the production of sugar during 1943-44 declined to 725,000 short tons from 1,039,000 short tons in 1942-43 due chiefly to shortage of fertilizers. According to the estimates of the growers, the 1944-45 sugar crop will be about 950,000 tons.

In the Dominican Republic, the production of sugar in 1944-45 is estimated at approximately 400,000 tons. In Australia, the preliminary estimate of the production of sugar in 1943-44 is placed at 570,000 tons, as compared with 486,000 tons in the preceding year. In Africa, the latest available estimate of the production of sugar for 1943-44 is placed at 1,138,000 tons as against 1,146,000 tons in the preceding year. In Mexico, the production of sugar in 1944-45 is not expected to exceed 385,000 tons. In Peru, the production of sugar in 1944 is estimated at 441,000 tons.

In the United States of America, the production of sugar beet for 1944-45, as indicated in October 1944, is placed by Messrs. Willet & Gray, the International Sugar Brokers of New York, at 9,82,000 tons, as compared with 891,000 tons in 1943-44.

For Axis and Axis-dominated countries, the details of production are not available. German occupied European territory is presumed to have, in spite of handicaps, maintained the level of beet sugar production. There is on the whole a shortage of sugar output in the season 1943-44 and the same conditions are expected to result in the current season 1944-45 also. The demand for sugar is no less great, particularly after the release of the European countries. Russian sugar production, which suffered a devastation in the war,

has according to latest reports, recovered considerably, several of her factories having started work again.

The figures of world consumption of sugar and the carry-over are not available at present due to the disturbed international situation. But as the production of last year had been low compared with the large demands the stocks of carry-over should necessarily have been low.

The world production in 1944-45 will be about 19,460,000 tons as compared with over 30,000,000 tons in the pre-war period.

Rationing in the U.S.A. and Australia

Sugar rationing is functioning in U.S.A. as well as Australia. Australia by reducing internal consumption to the minimum by the introduction of rationing is exporting its small surplus to Great Britain. Rationing of sugar in the United States, which was announced in May 1942, provides for an allowance of 8 ounces per week to individuals and 80 per cent of normal supplies to industrial concerns. On this basis annual consumption is estimated at 3.8 million tons. Rationing in the United States was introduced mainly to effect economy in space. It was also intended to release sugar for consumption to other United Nations who had lost their former sources of supply.

International Sugar Agreement Renewed by 14 Countries but not by India

The protocol extending the International Sugar Agreement for a period of two years from 1st September 1942, was signed in London by the representatives of fourteen out of twenty-one signatory countries, viz. Australia, South Africa, Belgium, Brazil, Czechoslovakia, Dominican Republic, Haiti, Netherlands, Peru, Portugal, United Kingdom, the U.S.S.R., the U.S.A. and the Philippines. As mentioned above, India decided to terminate the agreement and did not enter the protocol. Consequently she is free to export sugar now to any country.

I. L. O. Suggest "Super Control"

Dr. O. W. Willcox, the author of a famous book on Sugar Industry and associated with I. L. O. has examined the organisation of sugar industry in the international markets in the post-war period. The I. L. O. Dr. Willcox, says, is decidedly in favour of international controls in commodities which have been subject to periodical cycles of depression and ruinous prices resulting from over-production. He opines that an International Commodity Control Scheme should embrace all countries that export to the world market and those which import from those countries. Dr. Willcox suggests the institution of "Super Control" over all national controls by the I. L. O. Dr. Willcox has contributed an article explaining his views under the caption "Toward a New International Sugar Agreement" published in the U. S. Journal *Sugar* for December 1944. (See U. S. Journal *Sugar* for a detailed account of the problem.)

National Role of Sugar Industry in India

Sir T. S. Venkatraman in a paper submitted before the Thirteenth Annual Convention of Sugar Technologists Association of India has dealt with the national role of the sugar industry and made some enlightening and important observations. Dealing with the need for closer contact and

mutual and joint effort of the cultivator and the mill-owner, he says: "I visualise a great sphere of usefulness in the future for the sugar factory working in close unison with the cane growers of the tract. Such a union would be thrice blessed: It will greatly benefit not only the factory and the grower but also benefit the country at large from the effective and speedy amelioration of the peasant-agriculturists—often referred to as the mainstay of our national economy".

Post-War Planning in Sugar

An agricultural-cum-industrial development of outstanding importance to our country within the last decade has been the renaissance of our sugar industry. To the great advantage of Indian Agriculture, Indian Capital, Indian Technicians and Indian Labour, a great industry has been built up. The newly-constituted Central Sugarcane Committee will turn its immediate attention and time to the building up of the future of this industry. The cost of raw material should be reduced to the minimum by continuous improvements. Reorganisation should be carried out on a carefully planned basis keeping in mind the entire needs and interests of the country.

Provincial Governments Must Assist the Sugar Industry

We would reiterate here that the most important problem before the industry is that of improvement of cultivation of cane and of the reduction in the cost of production. In this respect a great responsibility lies on the shoulders of the Provincial Governments and the Agricultural Departments for assisting in every way the cane grower. The industry deserves the fullest support from the various Provincial Governments. In particular the Governments of U. P. and Bihar must expend larger amounts of money on development of cane cultivation, building of roads near factories, and free supply of technical aid to mills. They should also protect the interests of the cultivators and improve their lot. The industry also needs a measure of sympathy from the Provincial Governments by way of reduction of taxes, cesses, local tolls, etc. and also the provision of adequate transport facilities. Mills should be allowed to make fair profits like other industries of the country and be in a position to develop resources and reserve for depreciation and replacements of the war period. Tax concessions and a liberal price policy are needed now to improve the fortunes of the sugar industry.

Bengal's Difficulties and Need for Help

A peculiar feature of the Sugar Industry in Bengal has been its remarkably low production of about 12 thousand tons in spite of its potential capacity for production of about 60 thousand tons and consumption of about one lakh and 70 thousand tons, the bulk of which has necessarily to be imported from U. P. and Bihar. The industry in Bengal is in dire need of some immediate help. We suggest the following methods for consideration of the authorities:—

(1) Fixation of a suitable high minimum price of cane for 1945-46 at, say, Re. 1-2-0 per maund for cane delivered at the gate, Re. 1 at the railhead and 14 as. at the ghats by boat, to ensure maximum quantity of cane being brought to the factories.

(2) Restriction on crushing of ripe cane for manufacture of gur, till about the 15th of December, thus ensuring both proper utilization of cane and adequate supply for the factories.

(3) Arrangement for speedy transport of cane by rail and also by bullock-carts and boats which are in deficient supply at present and for fixation of higher sugar prices for Bengal sugar by the Sugar Controller, consequent on higher minimum cane prices and higher cost of production in the Province—such higher prices can be met by a special levy on sugar consumption in Bengal or by some other method.

In addition to these, an important direction in which the industry in Bengal can be helped prominently is by evolving an organisation for supply of suitable quality of cane, both early-ripening and late-ripening varieties, with plenty of sucrose, through the aid of scientific research in the soil of the Province. Unless adequate measures are taken immediately, the Sugar Industry in Bengal will languish and the agricultural and industrial economy of the Province will suffer.

Assistance to the Industry by Central Government and Legislatures

We hope that the Planning and Development Department of the Government will follow a liberal and cautious policy towards the sugar industry which has served the country well, and without any profiteering during the war-period. The whole question needs careful and patient study and any undue haste in adopting measures will result in loss to the industry. The present tariff duty should be maintained for another 3 years, and in the meantime, as soon as conditions become normal, a Tariff Board Enquiry should be held to assess the quantum of protection and the period of protection for the industry. The need for regulating the industry on an All-India basis cannot be sufficiently emphasised. Further, the Central Government and the Legislatures should adopt a friendly policy towards the sugar industry and enact measures to safeguard the vital interests of the industry which is so useful in the national economy. We fully share the feeling that a popular National Government is needed for following a progressive and dynamic industrial development policy in India and the institution of such Government will hasten a brighter future for the sugar industry. We trust that the members of the Central and Provincial Legislatures will evince a keen interest in devising measures for the proper development and regulation of this second great national industry.

Nutritional Survey, 1945

We are glad to note that Dr. V. K. R. V. Rao, Director of Statistics in the Food Department, who was appointed by the Government of India to collate data from Central and Provincial sources for formulating proposals for food planning, was directed in August, 1945 to undertake a country-wide investigation of nutritional conditions, resources and possibilities. We hope and trust that he will, *inter alia*, assess the importance of sugar as an energising food, rich in carbo-hydrates and make recommendations for its utilisation in increasing quantities for improving the nutrition of the people of India.

Indian Sugar Industry's Remarkable Progress Must be Continued

The remarkable progress made by the industry within a short period of 15 years and the magnificent contribution it has made for urgent demands of sugar both on the civilian and defence accounts must meet with legitimate

appreciation by the public and the State. The industry has amply justified the measure of protection granted to it. The war has revealed the necessity of strengthening the position of this industry for any emergency which might crop up. The necessity of its development is also enhanced due to the requirement for millions in this country of an energising food, containing 100 per cent carbo-hydrate of which there is a short supply both in this country and the whole world at the present time. We hope and trust that the Government of the country will continue to take a living interest in the welfare of this industry and enable it to occupy an important place among the sugar-producing countries of the world, by spending adequately on research work with a view to ensure a progressive reduction in the cost of production of sugar. A well planned policy is essential for a thorough reorganisation of the industry in order to enable it to occupy its legitimate place in any scheme of post-war reconstruction.

We are convinced that the industry will expand considerably during the next decade,* and cater for (1) the greatly increased demands of both sugar and gur, which are bound to follow from any planned action for improving the economic condition of the people in India, and (2) also exports in response to the demands of neighbouring countries.

We are also sanguine that the State will evince the greatest care for safeguarding and supporting an industry which has stood by them during the war-period, and has supplied sugar at reasonable rates, without any attempt at profiteering or improving its own financial condition, in appreciation of the effects of such a policy on the welfare and well-being of the general consumer who has enabled the establishment of the industry, under the impetus of liberal tariff protection granted by the State, on the recommendation of a Tariff Board. The Government and the Legislatures are bound to have a soft corner for an industry which has responded so magnificently to the country's call in a period of emergency.

* *Vide* the forthcoming publication of Mr. M. P. Gandhi, entitled, "Problems of Sugar Industry in India—Scope and Prospects of Re-organisation in the Post-War Period", being a comprehensive and critical survey of the industry since the grant of protection in 1932, and outlining the scope of optimum production and consumption of sugar in India in the post-war period, with a foreword by Sir Purshotamdas Thakurdas, K.B.E., C.I.E., pp. 375; price Rs. 12, to be published in October, 1945.

LIST OF SUGAR MILLS IN INDIA AND BURMA
WORKING AND PROJECTED
(1944-45)

THOROUGHLY REVISED AND BROUGHT UP-TO-DATE

APPENDIX

Publishers: GANDHI & CO. (Publishers),
Jan Mansion, Sir Pheroza Shah Mehta Road,
FORT - BOMBAY

Telegrams: "KEEN", BOMBAY.

Telephone: { Office: 25961; 24047
Res. : 43926

APPENDED LIST OF SUGAR MILLS (VACUUM PAN) IN INDIA (1944-45) (Including Gur Refineries)

EXPLANATION

Asterisk in the last but one column denotes mills which have also got Gur-refining plants.

† Mills marked thus did not work during this season.

‡ " " " are reported to be under construction.

S" = Sulphitation. "DS" = Double Sulphitation. "C" = Carbonatation. "DC" = Double Carbonatation.

Name of Factory, with full name and address of Managing Agents or Proprietors Location District Nearest Railway Station Nearest Steamer Station Daily cane-crushing capacity (tons)

BENGAL

1. North Bengal Sugar Mills Co., Ltd.
M/A. M/S. Soorajmull Nagarmull,
61, Harrison Road, Calcutta.
Tele { Grams: Sugar, Calcutta.
Phone: B. B. 6101.
2. Setabganj Sugar Mills, Ltd.
M/A. M/S. Soorajmull Nagarmull,
61, Harrison Road, Calcutta.
Tele { Grams: Sugar, Calcutta.
Phone: B. B. 6101.
- 3† Shree Radha Krishna Sugar Mills, Ltd.
138, Harrison Road, Calcutta.
Tele { Grams: Sugarsweet, Cal.
Phone: B. B. 2203.
4. The Ramnugger Cane & Sugar Co., Ltd.,
M/A. M/S. Anderson, Wright & Co.,
7, Wellesley Place, Calcutta.
Tele { Grams: Amasis, Calcutta.
Phone: Calcutta, 4300.

Gopalpur. (Tel. Sugar, Gopalpur, Rajshahi.)	Rajshahi.	Gopalpur, B. & A. R.	Sataghat.	1250*	DS
Setabganj. (Tel. Sugar, Setabganj, Dinajpur.)	Dinajpur.	Setabganj, Do.	Manihari.	800*	DS
Beldanga. (Tel. Sugarsweet, Beldanga.)	Murshida- bad.	Beldanga, Do.	Lalgola, B. & A. R.	750*	DS
Plassey P. O.	Nadia.	Plassey, Do.	Do.	500/700	DS

5.	Carew & Co., Ltd., M/A. M/S. Lyall, Marshall & Co., 4, Fairlie Place, Calcutta.	Darsana.	Do.	Darsana, Do	...	1500	DS
6.	The Deshbandhu Sugar Mills, Ltd., M/A. The Industrial Agency, 58, Patuatuly, Dacca. (Tel. Deshbandhu, Dacca.)	Charsindur.	Dacca.	Ghorashal (Flag)	Sultanpur- ghat.	250	DS
7†	Kaligunj Sugar Mills, Ltd., M/D. Seth Pannalal Kothari, Head Office: 168-B, Cotton Street, Calcutta. (Phone: B. B. 278C).	Kaligunj P. O. (Tel. Chinikul, B. & A. Arikhola.)	Dacca.	Arikhola, Do.	Ronaldsay Ghat, Kaliganj.	150	DS
8.	Das Sugar Corporation, Ltd., M/A. Dass Brothers, 30, Strand Road, Calcutta. Tele { Grams: Marvellous, Cal. Phone: Calcutta 3385 (3 lines).	P. O. Kishorganj. (Tel. Dayamayee, Kishorganj.)	Mymen- singh.	Kishorganj, Do.	...	400	DS
9.	Rajluxmi Sugar Mills, M/A. Kartick Bose & Sons, Dr. Bose's Laboratory, Ltd., 45, Amherst Street, Calcutta. Tele { Grams: Lactic, Calcutta. Phone: B. B. 415.	Maitra Bagan, Basirhat.	24 Parganas.	Maitra Bagan Ry. Siding, B. B. L. R.	...	75	S ৳

BIHAR

1.	Sakri Sugar Factory of The Durbhanga Sugar Co., Ltd., Registered Office: Lohat P.O. Dist. Darbhanga. Tele { Grams: Sugar, Lohat. Phone: Darbhanga 53A.	Sakri P. O. (Tel. Sakri Factory, Sakri. Telephone: Darbhanga 53A.)	Darbhanga.	Sakri, O. & T. Rly.	Semaria Ghat.	700	S
2.	Lohat Sugar Factory of The Durbhanga Sugar Co., Ltd., Registered Office: Lohat P.O. Dist. Darbhanga. Tele { Grams: Sugar, Lohat. Phone: Darbhanga 53A.	Lohat P. O. (Tel. Lohat Factory, Lohat. Telephone: Darbhanga 53A.)	Do.	Pandaul, Do. (Goods Lohat Siding.)	Do.	1300	S

<i>Name of Factory, with full name and address of Managing Agents or Proprietors</i>	<i>Location</i>	<i>District</i>	<i>Nearest Railway Station</i>	<i>Nearest Steamer Station</i>	<i>Daily cane-crushing capacity (tons)</i>
3. Ryam Sugar Co., Ltd., M/A. Begg, Sutherland & Co., Ltd., P. O. Box No. 21, Cawnpore. Tele { Grams: Begg, Cawnpore. { Phone: Cawnpore 2313.	Ryam Factory P. O. (Tel. Ryam Factory, Tarsarai.)	Darbhanga.	Tarsarai, O. & T. Rly.	Senaria Ghat.	779 C
4. Samastipur Central Sugar Co., Ltd., M/A. Begg, Sutherland & Co., Ltd., P. O. Box No. 21, Cawnpore. Tele { Grams: Begg, Cawnpore. { Phone: Cawnpore 2313.	Samastipur. (Tel. Central, Samastipur.)	Do.	Samastipur, Do.	Do.	795 S
5. New India Sugar Mills, Ltd., M/A. Cotton Agents, Ltd., (1) 52, Queensway, New Delhi. Tele { Grams: Cotagent, New Delhi { Phone: New Delhi, 7231. (2) 8, Royal Exchange Place, Calcutta. Tele { Grams: Lucky, Calcutta. { Phone: Calcutta, 562.	Hassanpur Rd., P. O. Hassanpur Sugar Mills, (Tel. "Birla", Hassanpur Sugar Mills.)	Do.	Hassan- pur Road, Do.	Senaria Ghat.	1300 DS
6. Motipur Sugar Factory, Ltd., M/D. Seth Haji Abdul Rahim Oosman, 2, Rajmohan Street, Calcutta, Tele { Grams: Muslim, Calcutta. { Phone: B. B. 2460.	Motipur. (Tel. Sattar, Moti- pur & Talahgur & Muzaffarpur, Tele. Muzaffarpur 65.)	Muzaffarpur	Motipur, Do.	Paleza Ghat.	1000/1300 DC
7. Champaran Sugar Co., Ltd., Barrah Factory, M/A. Begg, Sutherland & Co., Ltd., P. O. Box No. 21, Cawnpore. Tele { Grams: Begg, Cawnpore. { Phone: Cawnpore 2313.	Bara-Chakia P. O. (Tel. Cane, Bara-Chakia.)	Champaran.	Chakia, Do.	Paleza Ghat.	932 C

8.	Belsund Sugar Co., Ltd., M/A. James Finlay & Co., Ltd., 1, Clive Street, Calcutta. Tele { Grams: Mercator, Calcutta. Phone: Calcutta, 4600.	Righa P. O. (Tel. Mitha, Figha.)	Do.	Righa,	Do	Semaria Ghat	850	DS
9.	Shree Hanuman Sugar Mills, Ltd., M/A. Shree Hanuman Investment Co., Ltd., 178, Harrison Road, Calcutta. Tele { Grams: Hopwoda, Calcutta. Phone: B. B. 4502.	Mothari. (Tel. Sugar, Mothari. Telephone No. 35.)	Do.	Mothari,	Do.	Do.	730	DS
10.	The Sugauli Sugar Works, Ltd., M/D. Mr. Md. Hanif & Mr. Amjadali, 3 & 5 Rajmohan Street, Calcutta.	S. gauli. (Tel. Taj, Sugauli.)	Do.	Sugauli,	Do.	Do.	900	DS
11.	Motilal Padampat Sugar Mills Co., Ltd., H. O. Kamla Tower, Cawnpore. Tele { Grams: Motipat, Cawnpore. Phone: 2532-34.	Majhauria. (Tel. Motipat, Majhauria.)	Do.	Majhauria,	Do.	Do.	1000	DS
12.	Champarun Sugar Co., Ltd., Chanpatia Factory, M/A. Begg, Sutherland & Co., Ltd., P. O. Box No. 21, Cawnpore. Tele { Grams: Begg, Cawnpore. Phone: Cawnpore 2313.	Chanpatia. (Tel. Chansuco, Chanpatia.)	Do.	Chanpatia,	Do.	Do.	870	S
13.	S. K. A. Sugar, Ltd., M/A. Dalmia Jain & Co., Ltd., Dalmianagar, Sahabad. Tele { Grams: Dalmiajain, Dalmianagar. Phone: 77, Gaya Special Line.	Palta Lauriya P. O. (Tel. Dalmia Jain, Lauriya.)	Do.	Do.	Do.	Do.	500/600	DS
14.	Harinagar Sugar Mills, Ltd., M/A. Narayanlal Bansilal, 207, Kalbadevi Road, Bombay 2. Tele { Grams: Maryada, Bombay. Phone: Bombay 30841.	P. G. Harinagar Sugar Mills. (Tel. Maryada, Ratanagar, Chandraparan.)	Do.	Harinagar,	Do.	-	1400/1500	DS

<i>Name of Factory, with full name and address of Managing Agents or Proprietors</i>	<i>Location</i>	<i>District</i>	<i>Nearest Railway Station</i>	<i>Nearest Steamer Station</i>	<i>Daily cane-crushing capacity (tons)</i>
15. The New Swadeshi Sugar Mills, Ltd., (1) M/A. Cotton Agents, Ltd., 8, Royal Exchange Place, Calcutta. Tele { Grams : Lucky, Calcutta. { Phone : Calcutta 562. (2) 52, Queensway, New Delhi. { Grams : Cotagent, New Delhi. { Phone : New Delhi 7231. (3) M/A. Cotton Agents, Ltd., Imperial Bank Bldg., Bank St., Bombay. Tele { Grams : Lucky, Bombay. { Phone : Bombay 27046.	Narkatiaganj. (Tel. Birla, Narkatiaganj.)	Champan.	Narkatiaganj, O. & T. Rly.	Semaria.	900 DS
16. Ganga Devi Sugar Mills, Ltd., M/A. Marwari Brothers, Naraipore, Bagaha P.O. (Tele. Ganga, Bagaha.)	Naraipur	P. O.	Do.	Bagaha, Do.	Do. 650 DS
17. Gaya Sugar Mills, Ltd., Managing Director, Mr. Guru Sharan Lal.	Guraru. P. O. Guraru Mills. (Tel. Sugarmills. Tele- phone : Gaya 78.)	Gaya	Guraru,	E.I.R. Patna	850 DS
18. The South Bihar Sugar Mills, Ltd., M/A. N. K. Jain & Company, Ltd., 9, Clive St., Calcutta. Tele { Grams : Inredlead, Calcutta. { Phone : Calcutta 5977.	Bihta. (Tel. Sugar, Bihta. Phone : Dinapore 130.)	Patna.	Bihta,	Do. Digba.	1200 DS
19. Mohini Sugar Mills, Ltd., M/A. M/s. Karamchand Thapar & Bros. Ltd., 5, Royal Exchange Place, Calcutta. Tele { Grams : Spiritual, Calcutta. { Phone : Cal. 2333.	Bikramgunj. P. O. Bikramgunj. (Tel. Spiritual, Bikramgunj.)	Shahabad.	Bikramganj, A. S. L. Rly.	Sinha 40 Miles Buxar 40 Miles.	700 DS

20. Rohtas Industries, Ltd., M/A. Dalmia Sabharwal Jain & Co., P. O. Dalmianagar (Shahabad). Tele { Grams : Dalmiya Jain, Dalmianagar. { Phone : Gaya 77.	P. O. Dalmia- nagar.	Do.	Dehri-on-Sone, E. I. R.	Buxar.	1800	DC DS
21. Ganga Deshi Sugar Factory, Ltd., M/D. Behari Lal, Buxar, (Tel. Sugar, Buxar.)	Buxar. P. O. Buxar. Gajadharganj.	Shahabad.	Buxar,	Do. Buxar.	100 ⁴	
22. Sitalpore Sugar Works, Ltd. M/D. Ghosh & Dutt, 93, Dharatolla Street, Calcutta, and Indian Press Buildings, Allahabad. (Local Office: Sahibganj, Chapra).	Sitalpore. (Tel. Kamala, Sitalpore. O. & T.)	Saran.	Sitalpore, O. & T. Rly.	Baghi.	800	DS
23. Cawnpore Sugar Works, Ltd., Marhowrah Factory, M/A. Begg, Sutherland & Co., Ltd., P. O. Box No. 21, Cawnpore. Tele { Grams: Begg, Cawnpore. { Phone: Cawnpore 2313.	Marhowrah (Tel. Marsuco, Marhowrah.)	Do.	Marhowrah, Do.	Reve'gani	939	DC
24. Maharajani Sugar Factory, Prop. M/S. Tulsiram Bhagwandas, 61, Keshab Chandra Sen Street, Calcutta.	Maharajani.	Do.	Maharajani, Do.	Do.	400	
25. The Behar Sugar Works of the Industrial Corporation, Ltd., M/A. Bakubhai Ambalal & Co., P. O. Box 28, Ahmedabad. Tele { Grams: Indus, Ahmedabad. { Phone: Ahmedabad 5001. H. O. Bastion Road, Fort, Bombay. Tele { Grams: Indus, Bombay. { Phone: Bombay 22497.	Pachrukhi (Tel. Indus, Pachrukhi.)	Do.	Pachrukhi	Do. Palezaghah,	1100	DC

<i>Name of Factory, with full name and address of Managing Agents or Proprietors</i>	<i>Location</i>	<i>District</i>	<i>Nearest Railway Station</i>	<i>Nearest Steamer Station</i>	<i>Daily cane-crushing capacity (tons)</i>
26. New Savan Sugar & Gur Refining Co., Ltd., M/A. Andrew Yule & Co., Ltd., 8, Clive Row, Calcutta. Tele { Grams: Yuletide, Calcutta. Phone : Calcutta 5282.	Siwan. (Tel. Sugar, Siwan.)	Saran.	Savan C. & T. Rly.	Savan O. A.	800 DS
27. Indian Sugar Works, R. C. Pandit, Esq., Receiver, P. O. Siwan, Dist. Saran. (Tel. Indian, Siwan.)	Siwan	Do.	Do.	Do.	700 DS
28† Siwan Deshi Sugar Factory, Prop. Messrs. Noori Mian & Co., Bhatni (Gorakhpur.)	Do.	Do.	Do.	Do.	Gur only.
29. Bharat Sugar Mills, Ltd., M/A. Cotton Agents, Ltd., (1) 8, Royal Exchange Place, Calcutta. Tele { Grams: Lucky, Calcutta. Phone : Calcutta 562. (2) 52, Queensway, New Delhi. { Grams: Cotagent, New Delhi. Tele { Phone : New Delhi 7231.	Sidhwalia. (Tel. Birla, Sidhwalia.)	Do.	Sidhwalia,	Do. Revelganj and Palezaghat.	650 DS
30. Sasa Musa Sugar Works, Ltd., M/A. Jousell & Co., Ltd., P. O. Box 2164, Calcutta. (Tel. Diogenes, Calcutta.)	Sasa Musa. (Tel. Factory Sasa Musa.)	Do.	Sasa Musa,	Do. Palezaghat.	600 DS
31. S. K. G. Sugar, Ltd., M/A. Dalmia Jain & Co., Ltd., P. O. Dalmianagar, Dist. Shahabad. Tele { Grams: Dalmajain, Dalmianagar. Phone : 77. Gaya Special Line.	Hathua, P. O. Mirganj. Tel. "Dalmajain", Mir- ganj. Phone : Hathua 4 & 5.	Do.	Hathua,	Do. Palezaghat.	1400/1500 DS

32. The Vishnu Sugar Mills, Ltd.,
M/A. Bilasrai Banarsilal & Co., }
Agakhan Building, Dalal Street, Fort, Bombay. Gopalganj.
(Tel. Brijbilas, Bombay.) (Tel. Vishnu, Gopalganj.)

Do. Harkhua, Do. Revelganj. 800 DS

UNITED PROVINCES

1. Purtabore Co., Ltd.,
M/A. Begg, Sutherland & Co., Ltd.,
P. O. Box No. 21, Cawnpore.
Tele { Grams: Begg, Cawnpore
{ Phone: Cawnpore 2313.

Gorakhpur. Mairwa, Do. Revelganj. 720 DC

2. Noori Sugar Works,
Prop. Noori Mian & Co., Bhatni.
(Tel. Noori Bhatni.)

Do. Bhatni, Do. Barhaj, 726 DS

3. Shree Sitaram Sugar Co., Ltd.,
M/A. Karamchand Thapar & Bros., Ltd.,
5, Royal Exchange Place, Calcutta.
Tele { Grams: Spiritual, Calcutta.
{ Phone: Calcutta. 2331.

Do. Baitalpur, Do. Barhaj. 861 DS

4. Cawnpore Sugar Works, Ltd.,
Gauri Factory,
M/A. Begg, Sutherland & Co., Ltd.,
P. O. Box No. 21, Cawnpore.
Tele { Grams: Begg, Cawnpore.
{ Phone: Cawnpore 2313.

Do. Gauribazar, P. O. Barhaj 738 DS
(Tel. Gaurisucco, O. & T. Rly. (30 miles) Gauribazar.)

5. Deoria Sugar Mills, Ltd.,
M/A. Karamchand Thapar & Bros., Ltd.,
5, Royal Exchange Place, Calcutta.
Tele { Grams: Spiritual, Calcutta.
{ Phone: Calcutta 2331.

Do. Deoria. Do. 900 DS
(Tel. Spiritual, O. & T. Rly. Deoria.)

6. Sind National Sugar Mills, Ltd.,
M/A. The Sindhi & Co., Ltd.,
Deoria, Dist. Gorakhpur.

Do. Do. Barhaj Bazar. 351 DS

<i>Name of Factory, with full name and address of Managing Agents or Proprietors</i>	<i>Location</i>	<i>District</i>	<i>Nearest Railway Station</i>	<i>Nearest Steamer Station</i>	<i>Daily cane-crushing capacity (tons)</i>
7. Saraya Sugar Factory, Managing Partner, S. Surendra Singh Majithia, Sardarnagar, (Tel. Majithias, Sardarnagar).	Sardarnagar.	Gorakhpur.	Sardarnagar, O. & T. Rly.	Barhaj.	2129 DS
8. Diamond Sugar Mills, Ltd., M/A. Murarka & Sons, Ltd., 4-E, Dalhousie Square, Stephen House, Calcutta. Pipraich, O. & T.) Tele { Grams : Canesugar, Calcutta. Phone : Calcutta 1003 & 1349.	Pipraich. (Tel. Diamond, Pipraich, O. & T.)	Do.	Pipraich, Do.	Do.	700/800 DS
9. Pipraich Sugar Mills, Ltd., M/A. Mr. Mohammad Ashfaq, B.A., General Manager, (Telephone : Gorakhpur 25.)	Pipraich. (Tel. Pipraich. Telephone : Gorakhpur 25.)	Do.	Pipraich, Do.	Do.	300 S
10. The Shanker Sugar Mills, Ltd., M/A. Underchand Hariram, Captainganj.	Captainganj. (Tel. Shankarji, Captainganj.)	Do.	Captainganj, Do.	Do.	896 DS
11. The Punjab Sugar Mills, Co., Ltd., Managers, Messrs. Narang Bros. & Co., Ltd., 3. Montgomery Road, Lahore. { Grams : Narang, Lahore. Tele { Phone : Lahore 3717.	Ghughli. (Tel. Factory, Ghughli R. S.)	Do.	Ghughli, Do.	Do.	782 DS
12. Mahabir Sugar Mills, Ltd., M/A. Dwardkadas Baijnath, Siswa Bazar.	Siswa Bazar. (Tel. Mahabirji, Siswa Bazar.)	Do.	Siswa Bazar, Do.	Do.	620 DS
13. Ishwari Khetan Sugar Mills, Ltd., M/A. Devidutt Surajmull, Padrauna, Gorakhpur. Tele { Grams : Khetan, Padrauna. Phone : Padrauna 3.	Lakshmiganj (Tel. Khetan, Lakshmiganj.)	Do.	Lakshmiganj, Do.	Do.	500* S

14.	The Vishnu Pratap Sugar Works, Ltd., M/D. Raja Bahadur Raja Braj Narain Singh, C.B.E., Padrauna Raj. (Tel. Sugar, Rajabazar, Khadda.)	Khadda.	Do.	Khadda,	Do.	Do.	761	DS
15.	The Lakshmi Devi Sugar Mills, Ltd., M/A. Messrs. Agarwal & Co., P. O. Chhitauni. (Telephone: Padrauna 3.)	Chhitauni.	Do.	Chhitauni,	Do.	Do.	400/600	DS
16.	The Ramkola Sugar Mills, Co., Ltd., H. O. Nawashahr (Hazara), Via Abbottabad. Tele { Grams: Timber, Nawashahr, Hazara. "Phone: Abbottabad 31.	Ramkola, (Tel. Sugar, Ramkola, Tele: Padrauna 18.)	Do.	Ramkola,	Do.	Revelgani.	900	DS
17.	Maheshwari Khetan Sugar Mills, Ltd., M/A. Messrs. Devidutt Chaturbhuj, P. O. Ramkola. (Tel. Khetan, Ramkola.)	Ramkola. (Telephone; Padrauna 4.)	Do.	Ramkola,	Do.	Barhaji.	777	DS
18.	Padrauna Rajkrishna Sugar Works, Ltd., M/D. Kr. Rudra Pratap Narain Singh, "Jagdis Garh", Padrauna. Tele { Grams: Krishna, Padrauna. "Phone: Padrauna 14.	Padrauna. (Telephone No. 6.)	Do.	Padrauna,	Do.	Do.	800	S
19.	Jagadish Sugar Mills, Ltd., M/A. Raja Bahadur Brijnarayan Singh & Co., Padrauna. Tele { Grams: Jagadish, Padrauna. "Phone: Padrauna 15.	Kathkuiyan, Padrauna P. O.	Do.	Kathkuiyan,	Do.	Do.	400	DS
20.	The United Provinces Sugar Co., Ltd., M/A. James Finlay & Co., Ltd., 1, Clive Street, Calcutta. Tele { Grams: Mercator, Calcutta. "Phone: Calcutta 4600.	Seorahi P. O. (Tele. Chini. Seorahi)	Do.	Tamkahi Road,	Do.	Do.	925	DS
21.	The Madho Kanhaya Mahesh Gauri Sugar Mills, Ltd.	Munderwa. (Tel. Jagdis, Munderwa.)	Basti.	Munderwa,	Do.	Do.	600/700	DS

<i>Name of Factory, with full name and address of Managing Agents or Proprietors</i>	<i>Location</i>	<i>District</i>	<i>Nearest Railway Station</i>	<i>Nearest Steamer Station</i>	<i>Daily cane-crushing capacity (tons)</i>
22. Ganesh Sugar Mills, Ltd., M/A. Poddar Jaipuria & Co., 51, Vivekananda Road, Calcutta. Tele { Grams: Jaipuria, Calcutta. { Phone: Burra Bazar 4100 & 5557.	P. O. Anandnagar, Basti. (Tele. Ganesh Pharenda, O. & T.)		Pharenda, O. & T. Rly.	Barhaji.	900 DS
23. Ledi Sugar Factory, Lessees: E.L.—Baha Bhargava & Co., P. O. Nichlaul (Gorakhpur.)	Ledi P.O. Nichlaul, (Tele. "Shyama", Siswa Bazar.)	Do.	Siswa Bazar, Do.	Do.	80 DS
24. Basti Factory of The Basti Sugar Mills Co., Ltd., M/A. Narang Bros. & Co., Ltd., 3, Montgomery Road, Lahore. Tele { Grams: Narang, Lahore. { Phone: Lahore 4614.	Basti. (Tel. Sugar Factory, Basti.)	Do.	Basti, Do.	Do. Ajodhya Ghat.	875/900 DC
25. Walterganj Factory of The Basti Sugar Mills Co., Ltd., M/A. Narang Bros. & Co., Ltd., 3, Montgomery Road, Lahore. Tele { Grams: Narang, Lahore. { Phone: Lahore 4614.	Walterganj, (Tel. Sugar, Walterganj.)	Do.	Walterganj, Do.	Do.	700/800 DS
26. Barhni Sugar Mills, Proprietors: The Delhi Cloth and General Mills Co., Ltd., Delhi. Tele { Grams: Yarn, Delhi. { Phone: Delhi 5243.	Barhni P. O. Ramduttganj. (Tel. Sugar, Barhni, O. & T.)	Do.	Barhni, Do.	Barhni.	800/1000 DS
27. Shree Anand Sugar Mills, Ltd., M/A. Agarwal Sugar Agents, Ltd., 5, Vivekananda Road, Calcutta. Tele { Grams: Jaipuria, Calcutta. { Phone: B. B. 4100 & 5557.	Khalilabad. (Tele. Shreeanand, Khalilabad.) :	Do.	Khalilabad, Do.	Do.	650 DS

28.	Shree Sheodayal Sugar Mills, P. O. Sheodayalganj (Gonda). Tel. Mansinghka, Nawabganj (Gonda).	P. O. Sheodayal- ganj.	Gonda.	Katra,	Do.	Do.	100/150	DS
29.	The Seksaria Sugar Mills, Ltd., M/A. Govindram Ramnath & Co., Seksaria Chambers, 139, Medows Street, Fort, Bombay. Tele { Grams : Fairtrade, Bombay. Phone : Bombay 34627.	Bahnban. (Tel. Seksariaco, Bahnban.)	Do.	Bahnban,	Do.	Do.	800	DS
30.	Nawabganj Sugar Mills Co., Ltd., M/A. Narang Bros. & Co., Ltd., 3, Montgomery Road, Lahore. Tele { Grams : Narang, Lahore. Phone : Lahore 4614 and 3717.	Nawabganj. (Tel. Sugar Mills, Nawabganj, Gonda.)	Do.	Nawabganj,	Do.	Barhaj.	1850	DS
31.	Balrampur Sugar Co., Ltd., Balrampur Factory, M/A. Begg, Sutherland & Co., Ltd., P. O. Box No. 21, Cawnpore. Tele { Grams : Begg, Cawnpore. Phone : Cawnpore 2313.	Balrampur. (Tel. Balsuco, Balrampur. Telephone : Balrampur 37.)	Do.	Balrampur,	Do.	Do.	768	DS
32.	Balrampur Sugar Co., Ltd., Tulsipur Factory, M/A. Begg, Sutherland & Co., Ltd., P. O. Box No. 21, Cawnpore. Tele { Grams : Begg, Cawnpore. Phone : Cawnpore 2313.	Tulsipur. (Tel. Talsuco, Tulsipur.)	Do.	Tulsipur,	Do.	Ajodhya Ghat.	746	S
33.	Seth Ramchand & Sons Sugar Mills, Lucknow.	Aishbagh. (Tel. Malaco, Lucknow. Phone : Lucknow 605.)	Lucknow.	Aishbagh, E. I. R.	Do.		793*	DS
34.	Ratna Sugar Mills Co., Ltd., M/A. Kashiprasad & Co., 107, Street Field Road, Benares City. (Tel. Ratna, Benares.)	Shahganj, (Tel. Ratna. Shahganj, Jaunpur.)	Jaunpur.	Shahganj,	Do.	Balia.	751	DS

<i>Name of Factory, with full name and address of Managing Agents or Proprietors</i>	<i>Location</i>	<i>District</i>	<i>Nearest Railway Station</i>	<i>Nearest Steamer Station</i>	<i>Daily cane-crushing capacity (tons)</i>
35. R. B. Seth Lachhmandass Mohanlal & Sons Sugar Mills, Head Office : Shahalmi Gate, Lahore. { Grams : Laxmansons. Tele { Phone : Lahore 3709.	P. O. Jarwal Rd., (Tel. Laxmansons, Jarwal Road. Telephone : Gonda 16.)	Bahraich.	Jarwal Rd., E.I.R.	Ajodhya Ghat.	860 DS
36. The Burhwal Sugar Mills Co., Ltd., Managing Directors : Durga Sanker Dayaram, Collectorganj, Cawnpore. { Grams : Ganeshji, Cawnpore. Tele { Phone : Cawnpore 2758.	Burhwal. (Tel. Ganeshji, Burhwal.)	Barabanki.	Burhwal, Do.	Do.	650* DS
37. Shree Krishna Deshi Sugar Works, Lessees : J. Gupta & Co., Azmatgarh Palace, Benares. Tele { Grams : Shree, Benares. { Phone : Benares 151.	Jhusi. (Tel. Factory, Jhusi, Phone : Allahabad 269.)	Allahabad.	Jhusi, O. & T. Rly.	Do.	400* DS
38. §Tribeni Deshi Sugar Works, Lessee : L. Jainarain Prashad Agarwal, Naini. (Tel. Madho, Naini).	Naini.	Do.	Naini, E.I.R. & Buxar. G.I.P.R.		200* S
39. The Lakshmi Sugar & Oil Mills, Ltd., M/D. Rai Bahadur Sheth Bansidhar. Head Office : Hardoi.	Hardoi. (Tel. Lakshmi.)	Hardoi.	Hardoi, E.I.R.	Do.	1565 DS
40. The Seksaria Biswan Sugar Factory, Ltd., M/A. Govindram Bros., Ltd., Seksaria Chambers, 139, Medows St., Fort, Bombay. (Tel. "Fairtrade," Bombay.)	Biswan. (Tel. Factory, Biswan.)	Sitapur.	Biswan, O. & T. Rly.	Do.	1200 Double Tandem
41. The Lakshmiiji Sugar Mills Co., Ltd., M/D. Seth Kishorilal Saheb, Maholi (Dt. Sitapur)	Maholi. (Tel. Lakshmi, Maholi. Phone : Sitapur 5.)	Do.	Maholi, E.I.R. Buxar.		1250 DS

§ Only Gur-refining plant is working.

42. The Oudh Sugar Mills, Ltd., M/A. Cotton Agents, Ltd., 1. Imperial Bank Bldg., Bank St., Bombay. Tele { Grams: Lucky, Bombay. } { Phone: Bombay 27046 & 33745 } 4 lines. 2. 8, Royal Exchange Place, Calcutta. Tele { Grams: Lucky, Calcutta. { Phone: Calcutta 562. 3. 52, Queensway, New Delhi. Tele { Grams: Cotagent, New Delhi. { Phone: New Delhi 7231.	Hargaon. (Tel. Osmills, Hargaon Sugar Mills. Telephone : Sitapur 2.)	Sitapur.	Hargaon, O. & T. Rly.	Ajodhya Ghat.	1925	DS
43. Aira Sugar Factory, P. O. Aira Estate, Dist. Kheri, U. P.) Prop.: Indra Singh & Sons. Tele { Grams: Indra Singh, Tatanagar. { Phone: Tatanagar 18.	Khamaria, " (Tel. "Aira", Lakhimpore- Kheri.)	Kheri.	Lakhimpur, O. & T. Rly.	Bahram Ghat.	650	DS
44. The Hindusthan Sugar Mills, Ltd., M/A. Bachhraj & Co., Ltd., Jehangir Wadia Building, 51, Mahatma Gandhi Road, Fort, Bombay. Tele { Grams: Shree, Bombay. { Phone: Bombay 30027.	Golagokarannath. (Tel. Shree, Golagokarannath. Telephone No. 1, Golagokarannath.)	Do.	Golagokaran- nath. O. & T. Rly.	Do.	1950	DS
45. Rosa Sugar Works & Distillery of Carew & Co., Ltd., M/A. Lyall Marshall & Co., 4, Fairlie Place, Calcutta. (Tel. Ghat, Calcutta.)	Rosa. (Tel. Carew, Rosa.)	Shahjahan- pur.	Rosa Jn., E.I.R.	...	700*	DS
47. The Kesar Sugar Works, Ltd., M/A. Kilachand Devchand & Co., 45/47, Apollo Street, Bombay. Tele { Grams: Seeds, Bombay. { Phone: Bombay 26506.	Baheri. (Tel. Kesar, Baheri. Telephone No. 125, Bareilly Exchange.)	Bareilly.	Baheri, O. & T. Rly.	Barhaj.	1280	DS

<i>Name of Factory, with full name and address of Managing Agents or Proprietors</i>	<i>Location</i>	<i>District</i>	<i>Nearest Railway Station</i>	<i>Nearest Steamer Station</i>	<i>Daily cane-crushing capacity (tons)</i>
47. H. R. Sugar Factory, Ltd., M/D. Sahu Jagdish Prasad Sahib, Nekpur, Bareilly.	Bareilly. (Tel. Sugar. Bareilly. (Phone : 33.)	Bareilly.	Bareilly Jn., E.I.R. & O. & T. Rly.	Buxar.	902 DS
48. L. H. Sugar Factories and Oil Mills, Ltd., Pilibhit, M/D. Raja Radha Raman, Pilibhit. (Telephone : Pilibhit 32 and 26.)	Pilibhit. (Tel. Crystal, Pilibhit. Phone : Pilibhit 32.)	Pilibhit.	Pilibhit, Do.	Barhaj.	1750 S (Double Tandem).
49. Upper Ganges Sugar Mills, Ltd., M/A. Cotton Agents, Ltd., (1) 8, Royal Exchange Place, Cal. Tele { Grams : Lucky, Calcutta. (2) 52, Queensway, New Delhi. Tele { Grams : Cotagent, New Delhi. Phone : New Delhi, 7231.	Sheohara. (Tel. Birla, Sheohara.)	Bijnor.	Sheohara, E.I.R.	Buxar.	1300 DS
50. Seth Shiv Prasad Banarsidas Sugar Mills, Superintending Partner : Seth Banarsidas Sahib, Sahibabad, P. O. Ghaziabad, Dist. Meerut. Residential Prop. : Seth Kundanlal Aggarwal, Bijnor. (Telegrams : Jagmag, Ghaziabad.)	Bijnor. (Tel. Aggarwal, Bijnor.)	Do.	Bijnor, Do.	Do.	1100/1200 DS
51. § The Ganga Sugar Works, M/A. The Ganga Glass Works, Balawali, Bijnor.	Balawali.	Do.	Balawali, Do.	...	100 (Cane) 15/2 (Gur)
52. The Dhampur Sugar Mills, Ltd., M/D. Kr. Ram Antar Saheb, Rammiketan Alamgirigunj, Bareilly. (Telephone : Bareilly 159.)	Dhampur. (Tel. Sugarmills, Dhampur.)	Do.	Dhampur, Do.	Buxar.	900 DS

§ Factory is not working since 1937, it is not certain whether it will work at all.

53.	The Vijai Sugar Corporation Ltd., M/G. Lala Budhram Kuthiala, Doiwala, E. I. R.	Doiwala. (Tel. Vijai, Doiwala. Tel: Dehra Dun 564.)	Dehra Dun.	Doiwala,	Do. Karachi.	400*	DC/DS
54.	The Ganga Sugar Corporation, Ltd., College Road, Rawalpindi, Chairman: R.B. L. Isher Dass, M.A., LL.B., M.L.A. Tele { Grams: Gansuco, Rawalpindi. { Phone: Rawalpindi 641.	Deoband. (Tel. Sugar, Deoband. Telephone: Deoband 23.)	Saharanpur.	Deoband, N.W.R.	Buxar.	600	DC
55.	Rai Bahadur Narain Singh Sugar Mills, Ltd., M/D. S. B. Sardar Ranjit Singh, 2, Curzon Road, New Delhi. (Telephone: Delhi 7617.)	Lhaksar. (Tel. Sugar, Lhaksar, Jn., E. I. Tele: Roorkhee 35.)	Do.	Lhaksar, E.I.R.	...	1250	DS
56.	The Lord Krishna Sugar Mills, Ltd., Regd. Office: 17, Lawrence Road, Lahore, M/D.: Seth Benarsi Dass Gupta. Tele { Grams: Bindal, Lahore. { Phone: Lahore 2865.	Saharanpur. (Tel. Krishna, Saharan- pur. Telephone: Saharanpur 3 and 3A.)	Do.	Saharanpur, N.W.R.	Do.	1250	DS
57.	Upper Jumna Swadeshi Sugar Mills Co., Ltd., M/A. Hariraj Swarup Rajendralal & Brothers, Muzaffarnagar. Tele { Grams: Swesugmill, Muzaffarnagar. { Phone: Muzaffarnagar 32.	Mansurpur. (Tel. Swesugmill, Mansurpur. Telephone: Mansurpur 44.)	Muzaffar- nagar.	Mansurpur, Do.	Karachi.	1000/1200	DS
58.	Upper India Sugar Mills, Ltd., M/D. P. Srikrishna Deva Bhargava, M/A. Mitra Mandal, Khatauli. Tele { Grams: Sugar, Khatauli. { Phone: Muzaffarnagar 96.	Khatauli. (Telephone: Muzaffarnagar 96.)	Do.	Khatauli	Do.	1149/1400	DS
59.	Amritsar Sugar Mills Co., Ltd., M/A. Amar Singh & Co., Amritsar (Punjab). Tele { Grams: Refiners, Amritsar. { Phone: Amritsar 597.	Rohanakalan. P.O. Rohanamills. (Tel. Refiners, Muzaffar- nagar. Phone: Muzaffarnagar 41.)	Do.	Rohanakalan,	Buxar. Do.	1200	DS

<i>Name of Factory, with full name and address of Managing Agents or Proprietors</i>	<i>Location</i>	<i>District</i>	<i>Nearest Railway Station</i>	<i>Nearest Steamer Station</i>	<i>Daily cane-crushing capacity (tons)</i>
60. Upper Doab Sugar Mills, Ltd., M/A. Hariraj Swarup, Rajendralal Debi Prasad & Brothers, Muzaffarnagar. Tele { Grams : Swesugmill, Muzaffarnagar. Tele { Phone : Muzaffarnagar 85.	Shamli. (Tel. Sugarmills, Shamli. Telephone : Shamli 32.)	Muzaffar- nagar.	Shamli, S.S.L.R.	Bombay	1400 DS
61. Diwan Sugar Mills, Prop. Messrs. Dhanpatmal Diwanchand, Lyallpur (Punjab). (Tel. Dhanpat, Lyallpur.)	Sakhoti-Tanda. (Tel. Diwanmills, Sakhoti-Tanda, N.W.R. Phone : Muzaffarnagar 77.)	Meerut.	Sakhoti-Tanda, N.W.R.	Do.	716* DS
62. Daurala Sugar Works, Prop. The Delhi Cloth and General Mills Co., Ltd., Delhi. Tele { Grams : Yarn, Delhi. Tele { Phone : Delhi 5243.	Daurala. (Telephone : Meerut, 259.)	Do.	Daurala, Do.	...	1250 DC
63. Jaswant Sugar Mills, Ltd., M/A. M/s. Associated Industrial Development Co., Ltd. Dalhousie Square, East, Calcutta. Tele { Grams : Bestluck. Tele { Phone : Calcutta 5660.	Meerut City. (Telegrams : Godfearing. Telephone : Meerut 230.)	Do.	Meerut City, Do.	Buxar.	650 DS
64. Ram Luxman Sugar Mills, Managing Props. : M/s. Dinanath Nanakchand, Chawri Bazar, Delhi. Tele { Grams : Ensey, Delhi. and Tele { Phone : 5004. R. S. Chiranjilal & Sons, Saddar Bazar, Delhi. Tele { Grams : Consult, Delhi. Tele { Phone : 5011.	Mohiuddinpur. (Telegrams : Sugarmills, Mohiuddinpur, N.W.R. Telephone : Meerut 365.)	Do.	Mohiuddinpur, Do.	Do.	600 /800* DS

55.	The Modi Sugar Mills, Ltd., M/A. Rai Bahadur Multanmal & Sons, Ltd., Modinagar.	Modinagar, Begamabad. (Tel. Modimills, Begamabad. Phone : Meerut 226)	Do.	Begamabad, Do.	Do.	700/1000	DS
56.	Simbhaoli Sugar Mills, Ltd., Chairman : Lt. Sardar Ragbir Singh Sandhanwalla, O.B.E. (Grams: Sandhanwalla, Simbhaoli, E.I.R. Tele { Phone: Hapur 77.	Simbhaoli, P. O. Baksar	Do.	Simbhaoli E.I.R.	...	735	DS
57.	The Gokulnagar Sugar Mills Co., Ltd., M/A. Sir Gokulchand Narang & Co., Ltd., 3, Montgomery Road, Lahore. (Grams : Narang, Lahore. Tele { Phone : Lahore 4614.	Kichha. (Tel. Sugar Factory, Kichha.)	Naini-Tal.	Kichha, O. & T. Rly.	Burhaj.	800	DS
58.	L. H. Sugar Factories & Oil Mill, Ltd., M/D. Raja Radha Raman Saheb, Pilibhit.	Kashipur. (Tel. Crystal, Kashipur.)	Do.	Kashipur, Do.	Do.	650	DS
59.	The Neoli Sugar Factory, Prop. : The Saraswati Sugar Syndicate, Ltd., M/A. The Neoli Syndicate, Neoli, Dt. Etah. (Telegram : Sucrose, Neoli (Etah).	Manpore Nagaria. Etah. P. O. Neoli. (Tel. Sucrose, Neoli, Etah.)	Etah.	Manpore Do. Nagaria,	Do.	873	DS
70.	The Standard Refinery & Distillery, Ltd., M/A. Karam Chand Thapar & Bros., 5, Royal Exchange Place, Calcutta. Tele { Grams : Spiritual. Tele { Phone : Calcutta 2331.	Unao.	Unao.	Unao, E.I.R. & Buxar. O. & T. Rly.		Gur only 75	
71.	Kamlapat Motilal Gutaiya Sugar Mills, Prop. : Messrs. Kamlapat Motilal, P. B. 69, Cawnpore. Tele { Grams : Lalmoti, Cawnpore. Tele { Phone : 2573.	Cawnpore. (Phone : Cawnpore 2315.)	Cawnpore.	Rawatpur, B. B. & C. I. R. K. M. G. Sugar Mills Siding, E. I. R.	Do.	Cane 1000 Gur 100	
72.	Experimental Sugar Factory, Imperial Institute of Sugar Technology.	Nawabganj.	Do.	Rawatpur, B. B. & C. I. R.	Do.	34*	

<i>Name of Factory, with full name and address of Managing Agents or Proprietors</i>	<i>Location</i>	<i>District</i>	<i>Nearest Railway Station</i>	<i>Nearest Steamer Station</i>	<i>Daily cane-crushing capacity(tons)</i>
73. Cawnpore Sugar Works, Ltd., Cawnpore Refinery. M/A. Begg, Sutherland & Co., Ltd., P. O. Box No. 21, Cawnpore. Tele { Grams : Begg, Cawnpore. Phone : Cawnpore 2313.	Coopeganj.	Cawnpore.	Cawnpore, E.I.R.	Buxar.	Gur only 73
74. Baijnath Balmakund Sugar Mills, Prop. : Mrs. Bankey Beharilal Singhania, Lalbankey Street, Cawnpore. Tele { Grams : Lalbankey. Phone : Cawnpore. 2489.	Anwarganj.	Do.	Anwarganj, B.B. & C.I.R.	Burhaj.	Gur only 27
75. Amroha Sugar Factory, Prop. The Ganesh Flour Mills Co., Ltd., Delhi, Tele { Grams : Ganesh Mill, Delhi. Phone : Delhi 6371.	Amroha. (Tel. Ganeshmill, Amroha.)	Moradabad.	Amroha, E.I.R.	Buxar.	500 DS
76. The Ajudhia Sugar Mills, Prop. : Lakshmiji Sugar Mills Co., Ltd., 24, Mozang Road, Lahore. Tele { Grams : Seth, Lahore. Phone : Lahore 2467.	P O Raja-Ka-Sahaspur. (Tel. Sugarmill, Moradabad. Phone : (1) Moradabad 79. (2) Moradabad 98. (Raja-Ka-Sahaspur Special line.)	Do.	Raja-Ka Sahaspur.	Do.	1305 DS

PUNJAB

1. The Gujranwala Sugar Mills, Co., Ltd., M/A. Narang Bros., Ltd., 3, Montgomery Road, Lahore. Singh & Co., Ltd., Civil Station, Gujranwala. Tele { Grams : Narang, Lahore. Phone : Lahore 2499.	Rahwali. (Tel. Sugarmill, Rahwali. Telephone 64.)	Gujranwala.	Rahwali, N.W.R.	Karachi.	300/450 DS
---	--	-------------	--------------------	----------	---------------

2.	†The Amritsar Sugar Mills, Co., Ltd., M/A. M/S. Amarsingh & Co., P. O. Khalsa College, Amritsar. Phone 597.	Gr. Trunk Road, Amritsar. (Tel. Refiners,Amritsar.)	Amritsar,	Do.	Do.	Gur only 42 tons.
3.	Saraswati Sugar Mills, M/A. The Abdullapur Syndicate Ltd., Abdullapur. M/D. Mr. D. D. Puri. Prop.: The Saraswati Sugar Syndicate, Ltd., 4, McLeod Road, P.O. Box No. 255, Lahore. { Grams: Sucrose, Lahore. Tele { Phone: Lahore 3034.	P. O. Abdullapur. Ambala. (Telegram: Saraswati, Abdullapur. Telephone: Jagadhari 27.)	Jagadhari,	Do.	Buxar.	400 DC & DS
4.	†The Pattoki Sugar Works, Pattoki, Prop.: Sahu Ram Swarup Ram Bharose Lal Bankers, Civil Lines, Bareilly, U. P.	Pattoki.	Lahore.	Pattoki,	Do.	100

ORISSA

1.	Aska Sugar Works & Distillery, Prop.: Messrs. Damodar Sahu and Brothers. (Tel. "Masseuite", Aska.)	Aska.	Ganjam.	Berhampur, B.N.R.	...	100/120*
2.	Jeyapore Sugar Co., Ltd., M/D. G. Subba Rao, B.Sc., C.P.E. (Glasgow), Rayagada (Dist. Koraput.) (Tel. Jeyasuco, Rayagada.)	Rayagada.	Koraput.	Rayagada,	Do. Vizagapatam.	250

ASSAM

1.	Padmini Sugar Mills, Managing Prop.: Mr. D. R. Roy, Deopani. P. O. Sarupathar (Sibsagar.)	Deopani, P. O. Sarupathar (Tel. Padmini Sugar Mills, Deopani. P. O. Barpathar, A. B. Rly.)	Sibsagar.	Sarupathar.	...	60 S
----	--	---	-----------	-------------	-----	---------

<i>Name of Factory, with full name and address of Managing Agents or Proprietors</i>	<i>Location</i>	<i>District</i>	<i>Nearest Railway Station</i>	<i>Nearest Steamer Station</i>	<i>Daily cane-crushing capacity (tons)</i>
MADRAS					
1. The Vizagapatam Sugars & Refinery, Ltd., Anakapalle, M/A. Messrs Kantilal Vasantlal & Co., Ltd., Bombay. (Tel. "Sugars", Anakapalle.)	Anakapalle.	Vizagapatam.	Anakapalle, M. & S.M.Rly.	Vizagapatam	200 DS
2. Etikoppaka Sugar Factory, M/A. The Etikoppaka Co-operative, Agricultural & Industrial Society, Ltd. (Tel. Sugar Factory, Etikoppaka, Narsipatnam Road.)	Etikoppaka.	Do.	Narasapatam Road, Do.	Do.	65 DS
3. The Sri Rama Sugar Mills, Ltd., Prop.: Raja of Bobbili, Raja of Venkatagiri and Others, Bobbili. (Tel. Sugar, Bobbili.)	Bobbili.	Do.	Bobbili, B.N.R.	...	150 DS
4. The Sri Rama Sugar Mills, Ltd., Seetanagram.	Seetanagram.	Do.	Seetanagram, Do.	...	300 DS
5. The K. C. P. Ltd., Proprietors of Vuyyuru Sugar Factory. (Tel. "Krushna", Vuyyuru.)	Vuyyuru.	Kistna.	Bezvada, M. & S.M.Rly.	...	850/1000 DS
6. The Kirlampudi Sugar Mills Ltd., M/A. K. V. Subbarao and Company, 99-A, Armenian Street, George Town, Madras.	Kirlampudi.	East Godavari.	Samalkot, Do.	...	150 DS
7. The Deccan Sugar and Abkari Co., Ltd., M/A. Parry & Co., Ltd., P. B. No. 12, Madras. Tele { Grams: Parry, Madras. Phone: Madras 2983.	Samalkot. (Tel. Deccan, Samalkot.)	Do.	Samalkot, Do.	Cocanada,	Gur CHAR only 40 tons. 250 (Cane). S

8.	The East India Distilleries and Sugar Factories, Ltd., M/A. Parry & Co, Ltd., P. B. No. 12, Madras. Tele { Grams: Parry, Madras. Phone : Madras 2983.	Nellikuppam. (Tel. Distimulo, Nellikuppam.)	South Arcot. Nellikuppam, S.I.R.	1500*	DS
9.	The India Sugars and Refineries, Ltd., Chairman, Board of Directors: (1) Mr. Rukn-ul-Mulk S. Abdul Wajid, B.A., Chairman and Managing Director, (2) Rao Saheb A. D. Tandu Mudaliar, Managing Director.	Hospet. (Tel. Sugars, Hospet.)	Bellary. Hospet, M. & S.M.Rly.	500*	DS
10.	Coimbatore Co-operative Sugar Manufacturing Society, Ltd., Hony. Secretary: Mr. V. Rangasami Naidu.	Podanur.	Coimbatore. Podanur, S.I.R.	50*	
11.	Al. Vr. St. Sugar Mills & Distillery, Prop.: Al. Vr. St. Veerappa Chettiar, Zamindar of Devatram, Devakottah.	Tachanallur. (Tel. Sugarmill, Tachanallur.)	Tinnevelly. Tinnevelly Do. Jn.	Gur only 16 (Palmyra Jaggery.)	
12.	T. A. Rm. Lakshmi Sugar Mills, Alvartirunagari. (Tel. Luxmi Sugar, Alvartirunagari.)	Near Laks- manatope.	Tinnevelly. Alvartirunagari. Tuticorin.	Gur only 5 (Palmyra Jaggery.)	
13.	The Murugappa Sugar Co., Ltd., Mailpatti (N. Arcot.)	Mailpatti.	N. Arcot. Mailpatti, M.S.M.Ry.	Cane 75 Gur 10 (Cane and Pal- myra Jaggery.)	
14.	The Southern India Sugar Co., Ltd., 179, Lord Napier Road, Erode.	Murugappapuram, Pugalur Sugar Factory P. O.	Trichino- poly. Madras. S.I.Ry.	150 to 300	

<i>Name of Factory, with full name and address of Managing Agents or Proprietors</i>	<i>Location</i>	<i>District</i>	<i>Nearest Railway Station</i>	<i>Nearest Steamer Station</i>	<i>Daily cane-crushing capacity (tons)</i>
BOMBAY					
1. The Saswad Mali Sugar Factory, Ltd., Head Office : Akluj, M/D. H. B. Girmé, Esq., Bombay Office: Sir Vithaldas Chambers, 16, Apollo Street, Fort, Bombay. Tele { Grams : Malisugar, Bombay. { Phone : Bombay 20134.	Akluj. (Tel. Malisugar, Akluj.)	Sholapur.	{ Kurla, G.I.P.Ry. { Diksal, G.I.P.Ry.	...	450/500 DS
2. The Brihan Maharashtra Sugar Syndicate, Ltd., Bargaon. M/A. C. G. Agashe & Co., Commonwealth Building, 980, Sadashiv, Laxmi Road, Poona 2. Tele { Grams : Shree, Poona and Akluj. { Phone : 9—138.		Do.	Pandharpur, B.L.R.	...	300/350 DS
3. Walchandnagar Sugar Works of Walchandnagar Industries Ltd., M/A. The Premier Construction Co., Ltd., Construction House, Ballard Estate, Bombay. Tele { Grams : Walsakhar, Bombay. { Phone : Bombay 26036, 37, 38, & 39.	P.O. Walchand- nagar (Dt. Poona). (Tel. Walsakhar, Baramati and Walsakhar, Diksal.)	Poona.	Baramati, D.B.R. Diksal, G.I.P.R.	Bombay.	1200 DS
4. The Ravalgaon Sugar Farm, Ltd., M/A. Walchand & Co., Ltd., Construction House, Ballard Estate, Bombay. Tele { Grams : Hincon, Bombay. { Phone : Bombay, 26036, 37, 38 & 39.	Ravalgaon, Nasik. (Tel. Ravalgaon Farm, Malegaon Camp.)	Nasik.	Manmad, Do.	Do.	600 DS
5. Shree Chandeo Sugar Mills, M/A. Messrs. A. H. Bhivandiwala & Co., 32, Apollo Street, Fort, Bombay. (Tele. Jaysugar, Bombay.)	P. O. Chandeo Sugar Factory. (Tele. Sugarmills, Puntamba, G. I. P. R.)	Ahmednagar.	Puntamba, Do.	...	350 DS

6. The Belapur Co., Ltd., Managers: W. H. Brady & Co., Ltd., Royal Insurance Building, Churchgate Street, Fort, Bombay. Tele { Grams: Brix, Bombay. { Phone: Bombay 25037.	Harigadga. (Tel. Belapur Company, Belapur Road.)	Do.	Belapur,	Do.	...	1000	DS
7. The Maharashtra Sugar Mills, Ltd., M/A. M. L. Dahanukar & Co., Ltd., Industrial Assurance Building, 3rd Floor, Opposite Churchgate Station, Fort, Bombay. Tele { Grams: Sugarmills, Bombay. { Phone: Bombay 30325.	P. O. Tilaknagar, Belapur Rd. (Tel. Sugarmills, Belapur Rd. Phone: Belapur Rd. P. C. O. Extension.)	Do.	Belapur,	Do.	Bombay.	1000/1200	DS
8. The Belvandi Sugar Farm, Ltd., M/A. M. L. Dahanukar & Co., Ltd., Industrial Assurance Building, 3rd Floor, Opposite Churchgate Station, Fort, Bombay. Tele { Grams: Design, Bombay. { Phone: Bombay 30325.	P. O. Belvandi Sugar Farm. (Tel. Sugarfarm, Belvandi, G. I. P. R.)	Do.	Belvandi,	Do.	Do.	250/300	DS
9. The Godavari Sugar Mills, Ltd., M/A. K. J. Somaiya & Sons, Fazalbhoy Building, Mahatma Gandhi Road, Fort, Bombay. Tele { Grams: Manikaka, Bombay. { Phone: Bombay 31921.	Sakarwadi.	Do.	Kanhegaon,	Do.	...	750/800.	
10. The Somaiya Sugar Factory, Controlled by Godavari Sugar Mills, Ltd.	Laxmiwadi Via Kopergaon.	Do.	Kopergaon,	Do.	...	700/750.	
11. The Ugar Sugar Works, Ltd.	Ugar Khurd.	Belgaum.	Ugar Khurd, M. S. M. R. Harbour.			500	DS

Name of Factory, with full name and address of Managing Agents or Proprietors

Nearest Railway Station

Nearest Steamer Station

Daily cane-crushing capacity (tons)

N. W. F. PROVINCE

1. The Frontier Sugar Mills & Distillery, Ltd.
 { Grams : Sugar Mills, Takht-i-Bhai.
 Tele { Phone : 27.

Takht-i-Bhai. Mardan.

Takht-i-Bhai.

...

400 DC/S

INDIAN STATES

(Kashmir)

State

1. Shree Yuvraj Sugar Mills, Ltd.,
 M/A. M/s. Karam Chand Thapar & Bros.,
 (Jammu & Kashmir) Ltd., Ranbirsinghpura.

Ranbirsinghpura, N. W. Rly. Kashmir State.

Karachi.

500 DC

(Punjab)

2. Jagatjit Sugar Mills Co., Ltd.,
 M/A. Narang Bros. & Co., Ltd.,
 3, Montgomery Road, Lahore.
 Tele { Grams : Narang, Lahore.
 { Phone : Lahore 4614.

Phagwara. (Tel. Sugar Factory, Phagwara. Telephone: Phagwara 101.)

Phagwara, Do.

Do.

750 DC

3. The Paramjit Sugar Factory,
 The Mahalaxmi Sugar Mills Co., Ltd.

Hamira, P. O. Kapurthala. Kapurthala. State.

Hamira, Do.

Do.

1200/1800

(United Provinces)

4. Raza Sugar Co., Ltd.,
 M/A. Govan Bros. (Rampur), Ltd.,
 Rampur State. (Telephone : 291).
5. Buland Sugar Co., Ltd.,
 M/A. Govan Bros. (Rampur), Ltd.,
 Rampur State. (Telephone : 291).

Rampur. (Tel. Razaco, Rampur Tele. : 332.)

Rampur, E. I. R.

Buxar.

1100 DS

Rampur. (Tel. Buland, Rampur State. Tele : 276.)

Do.

Do.

1100

DC

(Travancore)

6. The Travancore Sugars & Chemicals, Ltd.,
Secretaries & Treasurers : Parry & Co., Ltd.,
P. B. No. 12, Madras.
Tele { Grams : Parry, Madras.
Trivandrum 280.)
Trivandrum 283.

(Mysore)

7. Mysore Sugar Co., Ltd.,
H.O. Sri Jayachamaraja Wadiyar Road,
Bangalore City.
Tele { Grams : Mysugar, Bangalore.
Mandya.)
Mandya.
(Tel. Mysugar,
Mandya.)

(Bombay)

8. The Kolhapur Sugar Mills, Ltd.,
M/A. The United Agencies, Ltd.,
Shahupuri, Kolhapur.
Tele { Grams : Sugar Mills.
Kolhapur.)
Kolhapur.
(Tel. Sugar Mills.) State.
9. The Phaltan Sugar Works, Ltd.,
M/A. Mafatlal, Apte & Kantilal, Ltd.,
Sakharwadi, Satara.
Sakharwadi, Phaltan
Phaltan State. (Tel. State.
Sakhar, Phaltan.)
10. Krishna Sugar Mills, Ltd.,
M/A. M/S. Vnchurkar & Co.,
Kittur, Via Kudchi.
(Tele. Krishna Sugar, Kudchi.)

(Central India)

11. The Jaora Sugar Mills,
Prop. : Kalooram Govindram,
Jaora, C. I. (Telegram : Sugar, Jaora.)

<i>Name of Factory, with full name and address of Managing Agents or Proprietors</i>	<i>Location</i>	<i>State</i>	<i>Nearest Railway Station</i>	<i>Nearest Steamer Station</i>	<i>Daily cane-crushing capacity (tons)</i>
12. Bhopal State Sugar Industries, Ltd., M/A. M/s. A. H. Bhivandiwalla & Co., Motilal Mansion, 32, Apollo Street, Fort, Bombay.	Sehore.	Bhopal State.	Sehore, G. I. P. Rly.	...	750 DS
13. Shri Lakshmi Narayan Sugar Works, Ltd., M/A. Gupta Bros. & Co., Harpalpur (Budelhkhnd), C. I.	Harpalpur. (Tel. Alipura, Laxmichini, Harpalpur.)	State.	Harpalpur, G. I. P. Rly.	...	100 S
14. The Gwalior Sugar & Co., Ltd., Dabra (Gwalior), M/A. Govan Brothers, Ltd., Scindia House, New Delhi.	Dabra	Gwalior State.	Dabra, G. I. P. Rly.	...	750 DC & DS
15.† Maharani Parbati Sugar Mills, Ltd., (Tel. Sugarmills, Sarangpur.)	P. O. & Tel. Office Devas Sarangpur.	Devas State, J. B.	Bercha, Do.	...	100
16.† Dewas Sugar Mills, Dewas.	Dewas.	Dewas Senior.	Nagda Jn.	...	500 DS
17.† Ratlam Sugar Mills Co., Ltd., M/A. Sir Gokulchand Narang & Sons.	Ratlam.	Ratlam State.	Ratlam, B. B. & C. I. Rly.	...	500
18. §Seth Govindram Sugar Mills, Prop. : Seth Nandlalji Bachulalji.	Mahidpur Road.	Holkar State.	Mahidpur Road, B. B. & C. I. Rly.	Bombay	300
(Rajputana)					
19.† Sri Ganganagar Sugar Mills, Ltd., M/A. Seth Sunder Singh.	Ganganagar	Bikaner State.	...	...	600 DS
20. The Mewar Sugar Mills, Ltd., M/A. Dhandhania Kedia & Co., Bhupalsagar (Udaipur State).	Bhupalsagar. (Tel. Sugarmill.)	Udaipur State.	Bhupalsagar Me. S. R.	Bombay	300 DS

§ Worked for a few days only.

(Hyderabad)

21. The Nizam Sugar Factory, Ltd., M/A. H.E.H. The Nizam's Industrial Trust Fund, Represented by the Hyderabad Construction Co., Ltd., Abid Rd., Hyderabad. (Telephone: Hyderabad (Deccan) 2766.)	Sakarnagar. (Tel. Sugar.)	Hyderabad State.	Sakarnagar Station (Nizam St. Rly.)	...	1300/1500	DS
22.† The Salar Jung Sugar Mills, Ltd., Managing Agents : M/S. Agadi & Co., 209, Station Road, Hyderabad (Dn.)	Hyderabad.	Munirabad.	Hyderabad.	Munirabad, M. & S.M.R.	250	DS

BURMA

1.† The Sahmaw Sugar Factory of the Burma Sugar Co., Ltd., (Tel. Colberfeld, Rangoon).	Sahmaw. (Tel. Shortis, Sahmaw.)	District Myitkyina.	Sohmaw, Burma Rly.	...	900	DS
2.‡ New Burma Amrit Sugar Mills, Ltd., M/A. Amritlal Ojha & Co. (Burma) Ltd., 619, Merchant Street, Rangoon. (Tel. Ojhaco, Rangoon.)	Hninpale. P. O. Bilin. (Tel. Amrit Sugar Works.)	Thaton (L. Burma.)	Hninpale. Do.	...	400	DS
3. † The Zeyawadi Sugar Factory, Ltd., M/D. Chandradeva Prakash Sinha, Esq., Zeyawadi (Burma). (Tel. Prakash, Rangoon.)	Zeyawadi. (Tel. Sugar, Zeyawadi.)	Toungoo.	Zeyawadi.	Rangoon.	1000/1200	DS

**PROVINCIAL DISTRIBUTION
OF
SUGAR MILLS IN INDIA
(1944)**

Province			Cane Facto- ries	Gur Refineries only	TOTAL
Bengal	...	...	9	...	9
Bihar	...	...	31	1	32
United Provinces	...	...	73	3	76
Punjab	...	...	3	1	4
Madras	...	...	11	3	14
Bombay	...	...	11	...	11
Assam	...	...	1	...	1
Orissa	...	...	2	...	2
N. W. F. P.	...	...	1	...	1
Indian States	...	...	21	1	22
TOTAL			163	9	172

Burma 3 ... 3

No. of Factories (including Gur Refineries) actually
working in the season 1943-44 was about ... 157

No. of Factories (including Gur Refineries) that did not
work during the season 1943-44 (Factories under
construction included) 15

